

DECISION DOCUMENT
REGARDING
DEPARTMENT OF ENVIRONMENTAL
PROTECTION'S §303(d)
LIST AMENDMENT SUBMITTED ON
OCTOBER 1, 2002 AND SUBSEQUENTLY
AMENDED ON MAY 12, 2003

Prepared by the
Environmental Protection Agency, Region 4
Water Management Division

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I. Executive Summary

On October 1, 2002, the Florida Department of Environmental Protection (FDEP) submitted its 2002 update to its Section 303(d) list for Group One watersheds to the Environmental Protection Agency for review. Subsequently, FDEP amended that submission on May 12, 2003. Following its review of Florida's amended submittal, EPA is approving that list in part and adding waters to the State's Section 303(d) list. This document summarizes EPA's review and the basis for the Agency's decision.

Section 303(d)(1) of the Clean Water Act (CWA or Act) directs states to identify those waters within their jurisdictions for which effluent limitations required by §301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard (referred to as water quality limited segments defined in 40 C.F.R. 130.7), and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The §303(d) listing requirement applies to water quality limited segments impaired by pollutant loadings from both point and/or nonpoint sources. After a State submits its Section 303(d) list to EPA, the Agency is required to approve or disapprove that list.

Florida's 2002 submittal is an update to the State's most recently approved Section 303(d) list, approved by EPA on November 24, 1998 (the 1998 list). Since the 1998 list was submitted, at the direction of the State Legislature, the Florida Department of Environmental Protection (FDEP) developed a new methodology to assess whether waterbodies in the State are water quality limited. Florida's 2002 Section 303(d) list is FDEP's first application of that methodology.

In 1999, the Florida legislature enacted the Florida Watershed Restoration Act (WRA). Among other things, the WRA directed the Florida Department of Environmental Protection (FDEP) to develop and adopt by rule a methodology to identify waters that do not meet the State's approved water quality standards and, therefore, are required to be included on 303(d) lists. In early 2000, FDEP formed a Technical Advisory Committee (TAC) to help develop a method to identify water quality limited segments. On April 26, 2001, FDEP adopted the Impaired Waters Rule, commonly referred to as the IWR. See Identification of Impaired Surface Waters, Chapter 62-303, Florida Administrative Code (F.A.C.).

Waters that meet the Impaired Waters Rule assessment criteria will be identified by the State as water quality limited segments and submitted to EPA as an update to the then-current section 303(d) list. The IWR establishes specific protocols and thresholds for assessing waterbodies, in addition to data sufficiency and data quality requirements. The methodology contains procedures for assessing both aquatic life use support and human health use support. FDEP is conducting these assessments based on Florida's rotating basin approach. Under that approach, waters within the State are divided into five basin groups, each group representing approximately 20% of state watersheds. Each year, FDEP will assess waterbodies within one group of basins, and submit an update to its then-current Section 303(d) list to EPA for review. All five basin groups will be assessed within a five year period. For the 2002 update, Group One waterbodies were assessed.

All waters which were included in Florida's approved 1998 section 303(d) list will remain on the State's section 303(d) list, unless FDEP removes a waterbody from a future list and EPA approves the removal. On October 1, 2002, FDEP submitted to EPA for review an updated list containing, among other things:

- Additional Group One waterbodies which FDEP determined to be water quality limited segments pursuant to the State's listing methodology and, therefore, included in the Group One update of the section 303(d) list which Florida submitted to EPA for review.
- Group One waterbodies included on Florida's previously approved 1998 Section 303(d) list which were determined not to need TMDLs pursuant to the listing methodology and, therefore, removed from the Group One update of the section 303(d) list submitted to EPA for review.

While the guidelines, protocols, and requirements in the IWR may be useful tools for the state to use in identifying impaired waters, because they have not been used before and they are not part of the State's water quality standards, EPA did not rely on the methodology in reviewing Florida's list. Instead EPA reviewed the underlying data including data excluded under the State's methodology, to determine if the State's list met the underlying state water quality standards. EPA's review process generally followed a two step analysis:

- The Region reviewed the State's listing methodology, including data collection and data assessment requirements, to determine whether, based on Florida's approved water quality standards, the IWR was a reasonable method for identifying water quality limited segments.

- Where EPA was unsure whether the methodology was a reasonable method for identifying water quality limited segments, the Region conducted further waterbody and data analysis. Where the State's application of the IWR did not appear to properly implement Florida's approved water quality standards or EPA regulations, EPA addressed that inconsistency as part of this 303(d) list review process.

The Agency assessed waterbodies for all designated uses, based on Florida's water quality standards. The results of EPA's review demonstrate that FDEP's application of its new listing methodology was very successful for identifying waters that are not meeting water quality standards. Through its data collection and assessment process, FDEP assessed water quality for over 1,600 Group One waterbodies which, alone, is a monumental accomplishment. During EPA's review, the agency identified 80 additional water quality limited segments to be included on the State's section 303(d) list, which represents only about 4-5% percent of the assessments undertaken by FDEP. Many of the waterbodies identified by EPA would have been included on the section 303(d) list by FDEP if it were not for Florida's statutory requirement to identify the pollutant causing the impairment before a waterbody is included on the list.

EPA concluded that FDEP was largely successful for the Group One waterbodies at assessing attainment of designated uses and water quality criteria, including aquatic life use support and water quality criteria for most naturally variable indicator pollutants, aquatic life use support for water quality criteria with a toxic effect, aquatic life use support and narrative water quality criteria for nutrient impairments, fish consumption use support, and use support for those pollutants with water quality criteria expressed as an annual average. EPA believes that FDEP's assessment methodology for evaluation of bacteriological standards for Class I through III waterbodies needs further refinement. Furthermore, FDEP should work towards amending its process to include a method for identifying water quality limited segments when provided with clear evidence of impairment within small data sets.

FDEP has an extensive monitoring network and data collection effort. Without the database compiled by FDEP, which contains over 2,000,000 data points for Group One waterbodies alone, much of the analysis conducted the State and by EPA would not have been possible. In analyzing the effort as a whole, FDEP was ultimately very successful in identifying water quality limited segments in the Group One watersheds, based on factual evidence of impairment.

Following EPA's decision to partially approve and add waters to Florida's 2002 submission, the current section 303(d) list in the State of Florida contains:

- Approved 1998 303(d) List
- (+) Approved Group One FDEP Additions
- (+) Group One EPA additions
- (-) Approved FDEP Group One Delistings

The complete section 303(d) list for the State of Florida as of the date of this action by EPA is contained in Appendix L. The statutory and regulatory requirements relevant to Section 303(d) lists, and EPA's review of Florida's compliance with each requirement, are described in detail below.

II. Statutory and Regulatory Background

A. Identification of Water Quality Limited Segments (WQLSs) for Inclusion on the §303(d) List

Section 303(d)(1) of the Clean Water Act (“Act”) directs states to identify those waters within their jurisdictions for which effluent limitations required by §301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The §303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to EPA’s long-standing interpretation of §303(d).

EPA regulations at 40 CFR 131.7(b)(1) state, “Each State shall identify those water quality-limited segments still requiring TMDLs within its boundaries for which:

(i) Technology-based effluent limitations required by sections 301(b), 306, 307, or other sections of the Act; (ii) More stringent effluent limitations (including prohibitions) required by either State or local authority preserved by section 510 of the Act, or Federal authority (law, regulation, or treaty); and (iii) Other pollution control requirements (e.g., best management practices) required by local, State, or Federal authority are not stringent enough to implement any water quality standards (WQS) applicable to such waters.” EPA regulations define water quality limited segment as “[a]ny segment where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of the technology-based effluent limitations required by sections 301(b) and 306 of the Act.” 40 CFR 130.2(j).

Note: The term “water quality limited segment” as defined by federal regulations may also be referred to as “impaired waterbodies” or “impairments” throughout this decision document.

B. Consideration of Existing and Readily Available Water Quality-Related Data and Information

In developing §303(d) lists, states are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the state’s most recent §305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by

governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any §319 nonpoint assessment submitted to EPA. See 40 CFR 130.7(b)(5). In addition to these minimum categories, states are required to consider any other water quality-related data and information that is existing and readily available. EPA's 1991 Guidance for Water Quality-Based Decisions describes categories of water quality-related data and information that may be existing and readily available. See "Guidance for Water Quality-Based Decisions: The TMDL Process," EPA Office of Water, 1991, Appendix C ("EPA's 1991 Guidance"). While states are required to evaluate all existing and readily available water quality-related data and information, states may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring states to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 CFR 130.7(b)(6) require states to include, as part of their submissions to EPA, documentation to support decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list, (2) a description of the data and information used to identify waters, (3) a rationale for any decision to not use any existing and readily available data and information, and (4) any other reasonable information requested by the Region.

C. Priority Ranking

EPA regulations also codify and interpret the requirement in §303(d)(1)(A) of the Act that states establish a priority ranking for listed waters. The regulations at 40 CFR 130.7(b)(4) require states to prioritize waters on their §303(d) lists for TMDL development, and also to identify those WQLSs targeted for TMDL development in the next two years. In prioritizing and targeting waters, states must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. See §303(d)(1)(A). As long as these factors are taken into account, the Act provides that states establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs; vulnerability of particular waters as aquatic habitats; recreational, economic, and aesthetic importance of particular waters; degree of public interest and support; and state or national policies and priorities. See 57 FR 33040, 33045 (July 24, 1992), and EPA's 1991 Guidance at 4.

III. Analysis of the Florida Department of Environmental Protection's Submission

In reviewing FDEP's submittal, EPA first reviewed the methodology used by the State to develop the list update in light of Florida's approved water quality standards, and

then reviewed the actual list of waters. This section describes FDEP's listing methodology and outlines EPA's evaluation of both that methodology and the actual list of water quality limited segments included in the 2002 update. Where EPA was unsure whether the listing methodology identified all water quality limited segments for a given designated use or water quality criteria, EPA reviewed water quality data to determine whether any waterbodies should be added to the 303(d) list.

A. Overview of FDEP's Submitted 2002 303(d) List Update

The Florida Department of Environmental Protection has adopted the listing methodology set out in the IWR as Florida's methodology for identifying water quality limited segments to be included on the State's section 303(d) list. Applying the State's rotating basin approach, FDEP will assess waterbodies in one of five basin groups each year and, based on those assessments, will submit an annual update to its Section 303(d) list to EPA for review. For the 2002 list, Group One waterbodies were assessed. FDEP submitted its Group One Update to its 1998 Section 303(d) list (the Group One Update) to EPA for review on October 1, 2002, including newly listed waterbodies and waterbodies proposed for delisting within Group One. The submittal was subsequently amended on May 12, 2003. All other waterbodies included on Florida's approved 1998 Section 303(d) list which were not delisted remain on the section 303(d) list. Details of Florida's listing approach and EPA's review of the list are described below.

1. Florida's Water Quality Standards and Section 303(d) List Development

The Clean Water Act requires each State to identify and prioritize those waters where technology-based controls are inadequate to implement water quality standards:

Each State shall identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standards applicable to such waters.

33 U.S.C. § 1313(d)(1)(A); see also 40 C.F.R. 130.7(b) (EPA 303(d) listing regulations). EPA's regulations expressly provide that "[f]or purposes of listing waters under § 130.7(b), the term 'water quality standard applicable to such waters' and 'applicable water quality standards' refer to those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, water body uses, and antidegradation requirements." 40 C.F.R. 130.7(b)(3). EPA's review of State section 303(d) lists ensures that those lists identify water quality limited segments consistent with existing State standards.

The information a State provides EPA when submitting its 303(d) list includes a description of the methodology used to identify water quality limited segments. 40 C.F.R. § 130.6(b)(6)(i). As described more fully below, Florida has adopted the Impaired Waters Rule as the methodology which FDEP must use in preparing the State's section 303(d) list. States may, or may not, choose to amend their approved water quality standards to include a listing methodology. Florida did not amend its water quality standards to include the IWR. In fact, the IWR specifically renounces such an intention, providing that "[i]t is not the intent of this chapter to establish new water quality criteria or standards, or to determine the applicability of existing criteria under other provisions of Florida law." Fla. Admin. Code Ann. r. 62-303.100(3)(2002).

In reviewing Florida's Group One Update, EPA has determined whether the State reasonably identified waters not meeting the State's current, approved water quality standards. Region 4 first looked at FDEP's use support determinations. Since FDEP is constrained by State law to apply the IWR in preparing its section 303(d) list, EPA considered whether application of the IWR was a reasonable approach to identifying water quality limited segments in Group One basins. Where the State's application of the IWR appeared to result in a listing decision inconsistent with Florida water quality standards or EPA regulations, EPA has addressed that inconsistency as part of this 303(d) list review process.

2. List Development Methodology and Data Assessment

In May 1999, the Florida Legislature enacted the Florida Watershed Restoration Act (FWRA) to clarify FDEP's statutory authority for TMDL development and to establish methodologies for identifying water quality limited segments and developing TMDLs. FDEP uses a watershed management approach, a program that manages the state's water resources on the basis of hydrologic units, as the framework for implementing the FWRA. Florida's watershed management program also adopted a rotating basin approach to address water quality issues, which allows the State to achieve maximum effectiveness from limited monitoring and assessment resources by concentrating specific functional activities in specific basins according to an established, multi-year schedule. Florida's basin planning process divides the State's 52 water basins into five basin groups, with each group representing approximately 20% of the State's waters. The process rotates through those basin groups over an established five-year cycle. Information about Florida's basin planning process, the functions occurring during each year of the rotating basin cycle, and the basins included in each basin group are set out in more detail in Appendix M.

FDEP's Group One Update addresses the waterbodies in the Group One watersheds and was developed in accordance with EPA's "2002 Integrated Water Quality

Monitoring and Assessment Report Guidance” dated November 19, 2001 (Integrated Report Guidance), which recommended that states submit Integrated Reports to satisfy CWA requirements for both Section 305(b) water quality reports and Section 303(d) lists. EPA recognized the need for additional time for states to implement the recommendations of the guidance and provided the following options:

- States could provide the 2002 305(b) report on April 1, 2002, using the 1997 305(b) guidance; or
- Provide an Integrated Report on October 1, 2002, using the 2002 Integrated Report guidance; or
- Apply a hybrid approach, serving as a transitional report and list, with both components due no later than October 1, 2002.

FDEP elected to use the hybrid approach. In line with its rotating basin approach, FDEP will update its 303(d) list and 305(b) report annually and submit an annual 303(d) list update to EPA for review.

Throughout this decision document, EPA will refer to waterbodies listed in the categories in FDEP’s Integrated Report, set out in more detail below. EPA considered waterbodies included in all categories of that Report in its review, focusing that review on those waterbodies that seemed most likely to indicate possible water quality problems (Category 3c) or that had sufficient data for assessment (Categories 1,2, 4(a,b,&c), and 5). Category 3b was reviewed to check Florida’s guidelines for consideration of data. The State has defined its Water Body Categories (following the basic concepts, but not the exact categories, outlined in EPA’s Integrated Report guidance) as follows:

Category 1 Data are available to assess whether all beneficial uses are being met and they are being met. (No waterbodies were included in this category.)

Category 2 Data are available to assess whether some beneficial uses are being met, while insufficient data are available to assess whether all beneficial uses are being met

Category 3a No data are available to assess whether beneficial uses are being met.

Category 3b Some data are available, but they are insufficient to assess whether beneficial uses are being met.

Category 3c Enough data are available to meet the requirements for the Planning List in Rule 62-303 (Impaired Waters Rule) and the water body is potentially impaired for one or more designated uses.

Category 4a One or more designated uses are impaired and the TMDL is complete.

Category 4b One or more designated uses are impaired but no TMDL will be developed because the impairment is not caused by a pollutant.

Category 4c One or more designated uses are impaired but no TMDL will be developed because a proposed pollution control measure provides reasonable assurance that the designated uses will be restored in the future.

Category 5 Enough data are available to meet the requirements for the Verified List in Rule 62-303. These waters are impaired, are included on the state's 303(d) list, and will have TMDLs developed to restore them.

Waters are included in the Integrated Report after assessment as provided in the State's listing methodology. That methodology, as set out in the IWR, establishes specific protocols and thresholds for identifying water quality limited segments, in addition to data sufficiency and data quality requirements. Many aspects of the IWR methodology are new in the State of Florida and continue to receive considerable attention and debate among interested organizations within the State. While each part of the methodology may be a useful tool for the State to use in identifying water quality limited segments, because they have not been used before and are not part of the State's water quality standards, EPA did not rely solely on the methodology in reviewing Florida's list. Instead, where EPA could not determine that the listing methodology was a reasonable approach for identifying water quality limited segments, EPA reviewed water quality data to determine whether any waterbodies should be added to the 303(d) list based on Florida's approved water quality standards. The results of that review are explained in Section B below.

3. Public Participation Process

The Florida Department of Environmental Protection (FDEP) notified the public in July 2002 about opportunities to participate in the development of the 2002 303(d) list update. The State used the following mechanisms to notify the public:

- Notice in the Florida Administrative Weekly (FAW) on July 5, 2002;

- E-mail and regular mail notifications to over 1000 interested parties; and
- Notices published in various newspapers, including the Tallahassee Democrat, the Gainesville Sun, Ocala Star Banner, the Orlando Sentinel, the St. Petersburg Times, the Palm Beach Post, the Ft. Myers News-Press, and the Naples Daily News.

The notifications included a brief description of the list and the applicable regulations; a State website address where interested parties could obtain the draft list; a contact name, e-mail address, regular mailing address, and phone number where interested parties could obtain supporting information and information about planned public meetings; the times and locations for public meetings; procedures for submitting written comments by August 26, 2002; and the timetable in which a decision would be made on the list. FDEP posted the draft 303(d) lists on its website beginning on July 12, 2002 with an informational notice regarding the public participation opportunities.

During July, 2002, FDEP held seven public meetings across the State. Department staff provided background information about the TMDL program, the 303(d) list, and how waters were assessed for impairment. Attendees were provided an opportunity to make verbal comments and were requested to: (a) comment on the appropriateness of the listing for individual water segments; (b) provide more recent information about the listed waters, including water quality and bioassessment data; (c) provide "other information" such as evidence of algal blooms or site specific studies about nutrient impairment in area waters; and (d) provide information about planned pollution control mechanisms. Attendees were notified that written comments would be accepted through August 26, 2002, but that written comments received by August 2, 2002 would also be considered in preparation of a revised draft list to be posted on the Department's website on August 7, 2002.

FDEP held another public meeting in Tallahassee on August 14, 2002 to discuss the revised draft list and how the 2002 submittal to EPA would amend Florida's 1998 Section 303(d) list for the Group 1 Basins. More than 300 people attended the eight public meetings and FDEP received over 180 written comments on the draft list.

The 2002 update to Florida's Section 303(d) list was adopted by Secretarial Order on August 28, 2002. Interested parties were notified about the adopted list by e-mail on August 29, by publication of a notice in the FAW on August 30, by notice in several newspapers statewide, and by issuance of a Department press release on August 30.

The Order notified interested parties of their right to challenge the order within 21 days or file an appeal within 30 days of receiving the notice.

FDEP received a petition challenging two DO listings in the Upper Suwannee River basin. FDEP also received two petitions challenging the Department's decision to not list several water bodies. Both of these petitions were addressed by FDEP and changes were submitted to EPA in the May 12, 2003, amendment to the State's October 1, 2002, Group One update submittal.

EPA has reviewed Florida's public participation process and has concluded that the State provided adequate public notice and opportunity for the public to comment on its decision regarding the § 303(d) list in compliance with federal requirements.

4. Consideration of Existing and Readily Available Water Quality-Related Data and Information (40 CFR Part 130.7(b)(5)(i - iv))

Florida's 2002 §303(d) list submittal indicates that WQLSs in the Group One basins still requiring TMDLs were identified based on assessment and consideration of all existing and readily available water quality-related information and data. The information and data, which included physical/chemical, biological, shellfish reclassification, fish consumption, and beach closures, were collected from the following sources:

- EPA's STORage and RETrieval (STORET) database
- U.S. Geologic Survey
- U.S. Army Corps of Engineers
- Statewide Biological Database
- Florida Department of Agriculture and Consumer Services
- Florida Department of Health
- FDEP Tallahassee
- FDEP Northeast District
- FDEP Northwest District
- FDEP Central District
- FDEP South District
- FDEP Southeast District
- Bream Fisherman Association
- Broward County
- Choctaw Indian Tribe
- Collier County

Lee County
Hillsborough County
Lake County
McGlynn Labs
Palm Beach County
Pinellas County
Polk County
Seminole County
Volusia County
City of Lakeland
Loxahatchee River District
Northwest Florida Water Management District
St. Johns River Water Management District
Suwannee River Water Management District
Southwest Florida Water Management District

Once all of the data was collected, FDEP screened the data to remove any data that would not be appropriate for assessing water quality for the purpose of identifying water quality limited segments. The following data was excluded from use under this assessment:

a) Removal of negative values;

It is acceptable to exclude data reporting a negative value for the substance analyzed because the data is in error. Credible data would not have any values less than the detection limit (which is in all cases a positive value) reported. Therefore, data entries recorded as negative values could not be relied upon as evidence for water quality assessment.

b) Removal of values reported as "888";

Upon investigation, all data reported 888 were coded in this manner because the values reported from the lab were suspect. The Water Management District that encoded these values did so intentionally as a flag to ignore the data due to suspected quality. Therefore, data entries recorded in this manner could not be relied upon as evidence for water quality assessment.

- c) Removal of values reported with lab code of “K”, meaning that the actual value is known to be less than the value reported where the reported value is greater than the criterion;

There are very limited QA/QC circumstances when this code can be used. This lab code cannot be used to report values that are less than the laboratory practical quantification limit or laboratory method detection limit. EPA has concluded that data entries recorded in this manner could not be relied upon as evidence for water quality assessment because it is unknown whether the sample exceeded the criterion or not. EPA concurs with FDEP’s conclusion to not consider data associated with this lab code.

- d) Removal of values reported with lab code “L” meaning that the actual value is known to be greater than the value given where the reported value is less than the criterion; and

This code is also limited in scope and applicability. As with lab code K, EPA has concluded that data entries recorded in this manner could not be relied upon as evidence for water quality assessment because it is unknown whether the sample exceeded the criterion or not. EPA concurs with FDEP’s conclusion to not consider data associated with this lab code.

- e) Removal of water samples for mercury not collected and analyzed using clean techniques.

The use of clean techniques removes the chances for contamination of mercury samples from the atmosphere which significantly bias the results upward and ultimately does not represent in-stream water quality. Therefore, it was reasonable for the State not to rely upon data entries based on non-clean techniques as evidence for instream water quality assessment.

EPA has determined that the above procedures are reasonable scientific approaches for considering data when making decisions regarding the identification of water quality limited segments. In each case, the sample result does not provide information that can be used to determine whether a waterbody meets water quality standards and the value reported cannot be relied upon as evidence of impairment.

In addition to addressing the analytical questions described above, the IWR also contains temporal and spatial guidelines aimed at ensuring that data used for assessment is representative of ambient water conditions. These guidelines include requirements for seasonal representation, temporal time durations for weighting data, and spatial distances to ensure waterbody coverage. Waters that did not meet the sufficiency requirements of the IWR were not included on the State's section 303(d) list, but were identified in Category 3b of its integrated report.

While each of these guidelines may be useful tools for the State to use in identifying water quality limited segments, because they have not been used before and they are not part of the State's water quality standards, EPA did not rely on them in reviewing Florida's list. Instead EPA reviewed the underlying data, including data excluded under the State's temporal and spatial guidelines, to determine whether FDEP reasonably identified water quality limited segments in Group One based upon Florida's approved water quality standards. The results of this review are explained in Section B below.

B. Review of FDEP's Identification of Waters (40 CFR 130.7(b)(6)(i - iv))

EPA has reviewed Florida's Group One Update to its approved 1998 list section 303(d) list. EPA is partially approving that submission and adding waters that Florida failed to identify as water quality impaired, based on Section 303(d) of the Act and 40 CFR 130.7. EPA's review is based on its analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified water quality limited segments required to be listed.

To determine whether FDEP reasonably identified all water quality limited segments still needing a TMDL, EPA conducted a thorough review of FDEP's approach for each designated use and criteria. Where EPA had questions about whether FDEP's methodology for identifying all water quality limited segments was congruent with Florida's approved water quality standards, EPA compared the existing and readily-available water quality data and information to the water quality criteria associated with specific designated uses. Water quality criteria can be expressed either as narrative or numeric criteria. Numeric criteria typically establish either a maximum level or a range of levels of a pollutant which can be present in the waterbody while still attaining water quality standards. Narrative criteria typically describe a condition (i.e. no imbalance of flora or fauna) which must be met for the waterbody to meet water quality standards. Determining whether a waterbody is meeting water quality standards for a narrative criteria requires the

identification of reference points against which the waterbody can be evaluated. EPA defers to a State's interpretation of its water quality standards, including how narrative criteria should be interpreted, when that interpretation is consistent with the underlying narrative criteria and is a reasonable translation of that criteria.

Florida's narrative water quality criteria

The following is a list of the primary narrative criteria considered in Florida's water quality assessment in Florida. In the IWR, FDEP described the processes it uses to apply these narrative criteria. EPA's determination of the reasonableness of these narrative translators will be set out in the sections below addressing EPA review of waterbody data against each criteria:

- Criteria: 62-302.530(47) FAC (Nuisance Species): Substances in concentrations which result in the dominance of nuisance species: none shall be present.

Method for identifying waters not attaining narrative criteria contained in IWR: 62-303.330(3) FAC in conjunction with 62-303.400(1) FAC (biological integrity standard): (1) Water segments with at least one failed bioassessment or one failure of the biological integrity standard, Rule 62-302.530(11), shall be included on the planning list for assessment of aquatic life use support.[62-303.330(3) FAC]; (2) Waters shall be verified as being impaired if they meet the requirements for the planning list in Part II and the additional requirements of sections 62-303.420-.480 FAC. As there are no verification requirements for biological integrity, waters with one failure of this standard are identified as a WQLS [62-303.400(1) FAC].

- Criteria: 62-302.530(48)(b) FAC (Nutrients): "In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna.

Method for identifying waters not attaining narrative criteria contained in IWR: 62-303.450 FAC (paraphrased):

Stream or stream segments shall be listed for nutrient impairments if the following biological imbalances are observed:

- a) algal mats are present in sufficient quantities to pose a nuisance or hinder reproduction of a threatened or endangered species, or

- b) annual mean chlorophyll a concentrations are greater than 20 ug/l or if data indicate annual mean chlorophyll a values have increased by more than 50% over historical values for at least two consecutive years.

Lakes or lake segments will be listed for nutrients if:

- a) for lakes with a mean color greater than 40 platinum cobalt units, the annual mean TSI for the lake exceeds 60, unless paleolimnological information indicates the lake was naturally greater than 60, or
- b) for lakes with a mean color less than or equal to 40 platinum cobalt units, the annual mean TSI for the lake exceeds 40, unless paleolimnological information indicates the lake was naturally greater than 40, or
- c) for any lake, data indicate that annual mean TSIs have increased over the assessment period, as indicated by a positive slope in the means plotted versus time, or the annual mean TSI has increased by more than 10 units over historical values.

Estuaries or estuary segments shall be included on the planning list for nutrients if their annual mean chlorophyll a for any year is greater than 11 ug/l or if data indicate annual mean chlorophyll a values have increased by more than 50% over historical values for at least two consecutive years.

Numeric Criteria

The primary numeric criteria related to water quality assessment in Florida are detailed in the Table under 62-302.530 FAC (Table: Surface Water Quality Criteria). These criteria are expressed in a number of different ways that will be discussed in more detail below.

Some of Florida's numeric water quality criteria are expressed in the Table as *not to be exceeded at any time*. Standards expressed in this manner pose several challenges in assessing attainment. In terms of assessing waters to create a list of water-quality limited segments, it is reasonable to not treat every single sample as representing the true ambient condition of the water segment and as the definitive assessment of whether the water segment is attaining applicable water quality standards. It is reasonable to account for natural or sampling variability in the assessment, either because of some sampling error or error in analysis of the sample or because a short term or sporadic

actual excursion of the water quality standards in some samples does not reflect the best assessment of the true condition of the waterbody.

Aquatic organisms can tolerate higher concentrations of pollutants for short periods of time than they can tolerate throughout a complete life cycle. See Technical Support Document for Water Quality-based Toxics Control, Appendix D - Duration and Frequency, U.S. Environmental Protection Agency, March 1991. The extent to which such a short term or sporadic excursion can occur without resulting in nonattainment of the water quality standard is a question that is the subject of considerable debate, and EPA does not have a final answer for this question at this time. EPA's best information at this time is that the extent to which such a "true" exceedance could occur without impairing designated uses depends on the nature and toxicity of the pollutant and on the extent to which the pollutant is naturally variable in the environment without impairing designated uses. EPA has made certain recommendations regarding these issues, depending on the type of pollutant.

As with narrative criteria interpretations, EPA defers to state interpretations of their numeric water quality criteria when those interpretations are reasonable. Florida has interpreted its water quality standards to recognize natural and statistical variability when making determinations of impairment. FDEP interprets the phrase "not to be exceeded at any time" in concert with the legislation establishing Florida's water quality standards, reading the rules establishing its water quality standards in conjunction with the legislation authorizing those standards. Section 403.021(11), Fla. Stat., states:

It is the intent of the Legislature that water quality standards be reasonably established and applied to take into account the variability occurring in nature. The department shall recognize the statistical variability inherent in sampling and testing procedures that are used to express water quality standards. The department shall also recognize that some deviations from water quality standards occur as the result of natural background conditions. The department shall not consider deviations from water quality standards to be violations when the discharger can demonstrate that the deviations would occur in the absence of any human-induced discharges or alterations to the water body.

EPA believes that Florida has correctly interpreted its own statute to recognize natural and statistical variability when making determinations of impairment. Standards set as not-to-be-exceeded chemical criteria do not address such variation and uncertainty. Therefore, perfect assessment of attainment for a "not to be exceeded" standard assumes a monitoring design that continuously measures the criterion at all points in the waterbody.

Since there are no state monitoring programs that measure all points in a waterbody continuously, actual monitoring programs involve sampling the population and estimating the characteristics of the population on the basis of the characteristics of the sample. The use of sampling introduces variability and uncertainty. Some of this is due to natural variability of the waterbody and human error associated with sample collection and analysis. Therefore, criteria set as "maximums not to be exceeded" may be subject to statistical applications--to account for variability--which does not, barring unusual circumstances, allow a single sample to determine whether a waterbody is impaired.

In reviewing Florida waterbodies with data and information associated with numeric water quality criteria, EPA considered a number of factors. These factors included whether more recent data show attainment that renders earlier data suspect (trends); the magnitude of exceedance; the frequency of exceedance; pollutant levels during critical conditions; and any other site-specific data and information such as biological monitoring, whether new controls have been implemented on the water, etc.

The waterbody specific findings resulting from EPA's review are set out in various charts within this Decision Document or in attached Appendices. Those charts include information about the sample set reviewed for each waterbody/pollutant combination. That sample information is expressed, for example, as 1/7, where 1 represents the number of exceedances and seven represents the number of total samples. The charts also identify which of the following reasons were the basis for EPA's decision to list or not list waterbodies, as follow:

1. No exceedances in entire data set for the past 7.5 years, therefore no evidence of impairment. (See discussion below concerning age of data considerations.)
2. Insufficient data for assessment. Where there is insufficient data, or evidence, EPA cannot draw any reasonable conclusion concerning water quality and, therefore, cannot conclude that the segment does not meet applicable water quality standards.
3. Insufficient exceedances given the number of samples representing water quality for the waterbody. Although the data set included some exceedances, the number of samples that met water quality standards clearly outweigh the exceedances. Therefore, the evidence provided by the

data was insufficient to conclude that the waterbody did not meet water quality standards.¹

4. Insufficient recent exceedances. The data set included a range of data that may have included an exceedance at the beginning of the time-frame, but more recent data show attainment that renders earlier data suspect (trends). For example, an exceedance may have occurred in 1995, but data collected from 1999 to 2002 did not include any exceedances. Therefore, the evidence provided by the data was insufficient to conclude that the waterbody does not currently meet water quality standards.
5. Sufficient exceedances indicate current conditions of the waterbody do not meet water quality standards. The data set included data that exceeded the water quality standard within the past 7.5 years. Therefore, the evidence provided by the data was sufficient to conclude that the waterbody did not meet water quality standards.
6. Given the nature of the waterbody, water quality probably represents natural conditions. Many conditions occur naturally in the environment that cause low dissolved oxygen concentrations or higher measurements of turbidity. For example, wetland waterbodies often have a lower concentration of dissolved oxygen. Florida's approved water quality standards provide that the State shall not attempt to abate natural conditions in the state waters. 62-302-300(15) FAC. Where EPA found evidence that the pollutant levels in a waterbody resulted solely from non-anthropogenic sources, were expected concentrations for a particular waterbody type, or were consistent with levels found in an unaltered reference stream as consistent with Florida's water quality standards at 62-302.200(15), the Agency concluded that the data did not demonstrate the waterbody was impaired.

Data Used for EPA Review of Listed Waters

¹ The factors considered in determining whether there were sufficient exceedances to evidence impairment differed based on the both the use and the pollutant being assessed. For further discussion on factors EPA considered in reviewing data See Section 2 Aquatic Life Use Impairment (Naturally Variable Pollutants; Toxic and Non-conventional Pollutants); Section 3 Primary and Secondary Recreational Use Support.

Region 4 used the extensive data collection effort conducted by FDEP as the basis for its review of Florida's list. FDEP's data collection efforts are described earlier in this document. EPA then formatted the data for review without any additional screening methods. EPA considered all water quality data and other variables directly indicative of designated use impairment. This includes data related to dissolved oxygen (DO), fecal and total coliform, turbidity, conductivity, alkalinity, lead, iron, silver, cadmium, copper, selenium, unionized ammonia, and zinc. In addition to data related to numeric criteria, EPA also considered some nutrient information and biological data in assessing whether waters are attaining narrative water quality criteria. How the data was used and the conclusions reached regarding each waterbody is set out more fully below in the description of EPA's review for each designated use identified in Florida's water quality standards.

Generally, in analyzing data and considering the relevance of data, EPA followed Table 4-2 in the July 2002 edition of the Consolidated Assessment and Listing Methodology (CALM) Guidance. This table describes the reliability of information for assessment purposes related to frequency of data, amount of data, conditions under which data was collected, analytical techniques, and age of data. All of these factors were considered while reviewing data collected for each waterbody.

In reviewing data as evidence of water quality for purposes of identifying water quality limited segments, EPA chose to look only at data collected within the past 7.5 years, or since 1995. This timeframe is the same as that provided in FDEP's listing methodology. EPA believes FDEP's timeframe is reasonable, and adopted that timeframe for our review of Florida's listing decisions. Florida has an extensive monitoring network and data collection effort. Data is and will be regularly collected throughout the State at the county, water management district, and State agency level. In fact, the database used by FDEP to assess the 1600 waterbodies Group One currently contains more than 2,000,000 data points.

EPA considered FDEP's robust data collection efforts in deciding not to rely on data older than 7.5 years, since older data can be less reliable in representing current conditions. Water quality may have changed during that time frame due to improvements in pollutant management strategies (point & nonpoint source), changes in population resulting in changes in land use, or hydromodification. Also sampling and analysis techniques have improved significantly, especially for certain metals analysis such as mercury, lead and cadmium, so reported results older than 7.5 years may not provide reliable evidence of in-stream concentrations.

The Administrative Record for this Decision includes the raw data considered by EPA in its review of Florida's list.

1. Review of FDEP's Data Guidelines

Federal regulations provide that each state "shall assemble and evaluate all existing and readily available water quality-related data and information to develop the list required by 130.7(b)(1) and 130.7(b)(2)." See 40 CFR 130.7(b)(5). The Impaired Waters Rule also requires FDEP to "assemble and evaluate" data to prepare the State's Section 303(d) list, but only provides for assessment when that data meets certain temporal and spacial guidelines set out in the rule. The IWR contains explicit guidelines for the collection, evaluation, and use of data for assessing water quality and impairments to designated uses. See FAC 62-303.320. While these guidelines may be useful tools for the State to use in identifying water quality limited segments (see earlier discussion), the effect of these data restrictions has been untested in the identification of water quality limited segments specific to Florida ecoregions. If water quality data was available for a waterbody, but that data did not meet the data sufficiency requirements contained in the IWR, FDEP was unable to use that data as evidence for including the water on the State's Section 303(d) list (Category 5). Rather, FDEP might include the water on either the list of waters with insufficient data for assessment (Category 3b) or the list of waters that are potentially impaired, the State's "planning list" (Category 3c).

As EPA reviewed Florida's list based on Florida's approved water quality standards, not the IWR, EPA determined whether the data guidelines contained in the IWR overly restricted data analysis and, therefore, led to FDEP not identifying water quality limited segments during its assessment, EPA reviewed a random sample of waterbodies listed in Category 3b of Florida's Integrated Report. The random sample was selected to give the Region a 95% confidence that FDEP's determination that there was insufficient data to assess waterbodies did not overlook impaired waterbodies. The method used to select this random sample is set out in Attachment A.

Based on this review, EPA has determined that the data guidelines used by FDEP in its assessment process did not result in the failure to identify any water quality limited segments. The waterbody specific findings resulting from EPA's review of the random sample are set out in Appendix C. EPA believes that these waterbody specific findings apply to all of the remaining waterbodies in Category 3b.

2. Aquatic Life Use Impairment

EPA separated its review of FDEP's assessment of Aquatic Life Use Support into four categories: impairments due to naturally variable parameters, toxic pollutants, biological assessments, and nutrient impairments.

Impairments Due To Naturally Variable Parameters

Naturally variable parameters are those that fluctuate in a waterbody due to non anthropogenic influences such as rainfall/flow, depth, time of day, salinity, etc. Naturally variable parameters at issue for this listing cycle include dissolved oxygen (DO), turbidity, fecal coliform, total coliform, conductivity, and alkalinity.

EPA first reviewed FDEP's methodology concerning the assessment of naturally variable parameters. Part of FDEP's methodology included the use of the binomial statistical approach using a 90 percent confidence threshold of a 10 percent exceedance rate. A discussion of the use of this binomial in this manner for naturally variable pollutants is contained in Appendix N.

Since FDEP's methodology included many other factors concerning the use of data in combination with the binomial, and because EPA reviewed the State's list based on Florida's approved water quality standards, EPA undertook a waterbody and data review in considering Florida's list. This review also tested the methodology used by FDEP. Therefore, EPA reviewed waterbodies for those naturally variable parameters identified above. The waterbodies with data on naturally variable parameters were divided into two groups: those waterbodies with greater than or equal to 20 samples, and therefore subject to the Impaired Waters Rule "verification" process; and those waterbodies with less than twenty samples. For waterbodies with less than 20 samples, EPA reviewed waterbodies which FDEP included in Category 3c. For waterbodies with more than 20 samples, EPA reviewed waterbodies which FDEP included in Category 2. The reason for this difference is that the IWR requires there be at least 20 samples collected over the past 7.5 years before FDEP can assess waterbodies for inclusion in categories 1, 2, or 5.

EPA has decided not to identify any water quality limited segments based on turbidity data because the Agency could not conclude that any of these segments did not meet water quality standards. Florida's approved water quality standard for turbidity criteria is expressed as less than or equal to 29 nephelometric turbidity units (NTUs) above natural background conditions. 62-302.530(70) FAC. EPA could not, however, determine natural

background conditions in these waterbodies because the existing and readily available data and information was not detailed enough to derive these conditions. The data summary set out in the tables in Appendices C and D indicate the number of readings above 29 NTUs over the past 7.5 years in absolute terms but did not specify what background readings were. Without knowledge of natural background conditions, EPA could not reach any reasonable decision about whether the waterbody met water quality standards and therefore could not identify any additional water quality limited segments.

Waterbodies with Greater than or Equal to 20 Samples - Verified
Unimpaired (Category 2)

EPA reviewed the underlying 'raw' data associated with a random sample of the waters included in Category 2, relying on assessment methods contained in CALM, to determine whether FDEP, in applying its listing methodology, failed to identify any waters that are not attaining the State's water quality standards. The Region conducted an additional data review for a random sample of waterbodies that the State identified in Category 2 of its integrated report submitted on October 1, 2002, to see if any water quality limited segments remained unidentified. The random sample was selected to give the Region a 95% confidence that FDEP's methodology was effective at not overlooking impairments. The method used to select this random sample is set out in Attachment A.

EPA looked closely at the data for this random sample of waterbodies to analyze the data for trends, levels during critical conditions, magnitudes of any exceedances, or any other site specific data or information. Such site specific information could include biological monitoring, or water quantity and flow impacts. Based on this review, EPA requested from FDEP any additional information that may assist with determinations of use impairment in these waterbodies. Other information would include site specific activities conducted in the watershed, biological data, habitat investigation results, etc. EPA has made a final determination of whether the waterbody should be identified as a water quality limited segment or not and included a summary of the rationale in the table below.

Except for those waterbodies with associated fecal coliform data, EPA has determined that FDEP's assessment process reasonably identified water quality limited segments in those waterbodies where there are more than 20 samples to review. The waterbody specific findings resulting from EPA's review of the random sample are set out in Appendix C. EPA believes that these waterbody specific findings apply to all the remaining waterbodies listed in Category 2 that had no associated data for fecal coliform.

EPA reviewed the data for all Category 2 waters for fecal coliform; the results of that review are set out in Appendix E. The method used to analyze the data for fecal coliform is described below, in the section addressing recreational use impairment.

Waterbodies with Greater than or Equal to 20 Samples - Verified Impaired but no Pollutant causing Impairment Identified

FDEP identified a number of waterbodies as water quality limited segments, using the methodology set out in the IWR. However, the Watershed Restoration Act does not allow FDEP to add any waterbodies to the 303(d) list unless the pollutant causing the impairment has been identified. Section 405.067(4) Fla. Stat. EPA has consistently interpreted Section 303(d) of the CWA to require that States list waterbodies that are impaired even where the specific pollutant causing the impairment is not known, unless the State can demonstrate that non-pollutant stressors cause the impairment. Therefore EPA has determined that those waters, identified by Florida as impaired but not included on the Group 1 Update because the pollutant has not been identified, are water quality limited segments and is adding them to the list as identified in Appendix F. For a complete discussion of EPA's position concerning listing of water quality limited segments even where the pollutant is unknown, please refer to Appendix B.

Waterbodies included on Florida's Planning List (Category 3c) (< 20 Samples or Cause of Impairment Unknown)

Federal regulations at 40 CFR 130.7(b)(5) require that states "assemble and evaluate all existing and readily available water quality-related data and information" to develop the 303(d) list. EPA interprets the regulation to require states to consider all such data and information and to provide a good cause justification for any decision not to list a water based on such data. At the same time, EPA recognizes that it is preferable not to have to make water quality assessment decisions with small data sets. However, since most states do not have monitoring programs which routinely produce large sample sets, EPA guidance does address how small sample sets should be considered. Where clear evidence of impairment is presented in a small data set, the water should be identified as a water quality limited segment. CALM at Section 4.3.2. The State's listing methodology makes no clear allowance for waters with less than 20 samples to be included on the section 303(d) list based on clear evidence of impairment except in the case of nutrient impairments. The IWR requires that FDEP have a minimum sample size of 20 within the past 7.5 years before a waterbody can be included on the section 303(d) list. Where the existing sample set is less than 20, the waterbody may be included only on FDEP's

planning list, which identifies “potentially impaired” waterbodies. While the planning list is part of the State’s Integrated Report, it is not part of Florida’s section 303(d) list. Since Florida’s listing methodology may not have identified all water quality limited segments among waterbodies with less than 20 samples, EPA reviewed data associated with waterbodies FDEP included on its planning list on a case-by-case basis.

FDEP included in the planning list all those waterbodies with at least 3 exceedances of the water quality criteria in question, but with less than 20 samples to review overall in the last 7.5 years. EPA looked closely at the data for each waterbody to first determine whether data existed in the past 7.5 years to conduct an assessment, and then analyzed the information for trends, levels during critical conditions, magnitudes of any exceedances, or any other more site specific data or information which could include biological monitoring or water quantity and flow impacts.

The waterbody specific conclusions EPA reached based on this review are set out in Appendix F, except for waterbodies listed for fecal or total coliform. The waterbodies listed for fecal or total coliform are discussed in the section addressing recreational use support below.

EPA has determined that certain waterbodies that FDEP did not include on its 303(d) list should be identified as water quality limited segments and, therefore, is adding those waters to the State’s section 303(d) list. The waterbodies set out in the Table in Appendix F in bold font with ‘List’ identified in the ‘EPA Conclusion’ column are being added to the list by EPA in this 303(d) action.

For other waters included on FDEP’s planning list, EPA reviewed the data, considering the factors enumerated above, and determined that it was inconclusive in demonstrating an impairment. EPA is approving FDEP’s decision not to list those waters as consistent with Section 303(d) of the CWA and the State’s water quality standards. The Agency also supports FDEP’s explicit planning list process of targeting additional monitoring and investigation on those ‘potentially impaired’ waterbodies as an effective water quality management process.

Waterbodies not Listed due to Natural Conditions

Florida’s water quality standards address natural conditions, providing that “the Department shall not strive to abate natural conditions.” 62-302.300(15). The standards define natural background as “the condition of waters in the absence of man-induced

alterations based on the best scientific information available to the Department. The establishment of natural background for an altered waterbody may be based upon a similar unaltered waterbody or on historical pre-alteration data.” 62-302.200.

FDEP did not list a number of waterbodies where it determined that concentrations of dissolved oxygen were measured below the numeric criteria due to natural conditions. The waterbodies affected by this decision can be placed into two categories, springs which originate from deep aquifer source water and blackwater streams which have extensive wetland dominated watersheds (marshes and swamps). Springs that originate from ground water from deep aquifers, such as the Floridan Aquifer, have been reported to be naturally low in dissolved oxygen content and do not contain higher levels of dissolved oxygen until adequate conditions for reaeration have occurred. Blackwater streams are characterized by warm water temperatures, low stream gradient, extensive riparian swamps, and waters darkly stained from humic substances leached from their catchments. Because of the high content of naturally occurring organic matter and low dissolved oxygen in waters in the associated riparian wetlands, periods of low dissolved oxygen naturally occur in these stream segments that serve as outflows and drain the wetlands areas.

EPA reviewed information submitted by FDEP and other information concerning dissolved oxygen levels for the waterbodies in question and concluded that all those waterbodies contain concentrations of dissolved oxygen that are naturally below the water quality criterion generally applicable to Florida waterbodies. Therefore, FDEP’s decision that these waterbodies should not be included on the State’s section 303(d) list is reasonable.

Impairments caused by Toxic and Non-Conventional Pollutants

Many pollutants which exert a toxic effect in water react and behave differently in the environment than the naturally variable pollutants discussed above. Unlike the naturally variable pollutants described above, toxic and non-conventional pollutants do not generally have wide variability in concentration under natural conditions that would still be protective of the designated use. Therefore, EPA carefully considered waterbodies with data related to toxic and non-conventional pollutants when reviewing Florida’s section 303(d) list. In considering this data, EPA paid particular attention to the magnitude and duration of any exceedances, and also considered any compensating periods of time when no exceedances were observed. See Technical Support Document for Water Quality-based Toxics Control, Appendix D - Duration and Frequency, U.S. Environmental Protection Agency, March 1991. For these pollutants, EPA reviewed all waterbodies with adequate

data collected for toxic and non-conventional pollutants to determine probable impairments to designated uses. This review included all waterbodies in categories 2 and 3c where there is data on pollutants with a toxic effect. These waterbodies had data on cadmium, copper, lead, selenium, silver, iron, unionized ammonia, and zinc.

In order to identify water quality limited segments, EPA looked closely at the data for each waterbody to first determine whether enough data existed in the past 7.5 years to conduct an assessment, and then analyzed the information for trends, levels during critical conditions, magnitudes and frequency of any exceedances, or any other more site specific data or information which could include biological monitoring or water quantity & flow impacts to determine if there was sufficient evidence to conclude that the waterbody did not meet water quality standards. Specifically, EPA compared the data against the relative criteria at 62-302.530 F.A.C., as approved by EPA. Based on this review, if there were any uncertainty in the analysis, EPA asked FDEP for any additional information that may assist with determinations. Other information might include site specific activities conducted in the watershed, bioassessment conclusions, habitat investigation results, etc. Where EPA received additional information, that data is discussed in relation to the specific waterbody in the EPA conclusions.

The waterbody specific conclusions EPA reached as a result of this review of category 2 waters (those with at least 20 samples) are set out in Appendix G. EPA determined that FDEP did not fail to identify any impairment for toxic or non-conventional pollutants in those waterbodies.

For those waterbodies with less than 20 samples taken over the past 7.5 years, EPA reviewed all data associated with 'toxic' criteria on category 3c waters against the water quality criteria in 62-302.530 F.A.C. The waterbody specific conclusions EPA reached based on this review are set out in Appendix H. EPA has determined that two waterbodies that FDEP did not include on its 303(d) list should be identified as water quality limited segments and, therefore, EPA is adding those waters to the State's section 303(d) list. The waterbodies set out in the Table in Appendix H in bold font with 'List' identified in the 'EPA Conclusion' column are being added to the list by EPA in this 303(d) action.

Impairments Indicated by Biological Information

Florida's listing methodology includes two separate tests to determine biological condition, the biological integrity standard, 62-302.530(11), and the bioassessment

procedures describing the process to be used to interpret Florida's narrative criteria, 62-302.530(26), which references designated uses.

Biological Integrity Standard

EPA reviewed Florida's listing methodology for assessment of designated use support related to the biological integrity standard. That methodology provides that any waterbody with one failure of the biological integrity standard, shall be included on the verified list as being impaired. 62-303.400(1). EPA has determined that the listing methodology is a direct application of the State's approved water quality standard for Biological Integrity, which provides that "[t]he Index for benthic macro invertebrates shall not be reduced to less than 75% of established background levels as measured using organisms retained by a U.S. Standards No. 30 sieve and collected and composited from a minimum of three Hester-Dendy type artificial substrate samples of 0.10 to 0.15 cm² area each, incubated for a period of four weeks." 62-302.530(11) FAC. EPA finds that Florida's listing methodology for the biological integrity standard is consistent with the State's approved water quality standard and, therefore, that FDEP's listing decisions based on this portion of the methodology are reasonable.

Bioassessment Procedures - Interpreting the Narrative Criteria

EPA recognizes that bioassessment procedures can serve as a very good tool for identifying biological impairment to waterbodies. See CALM Guidance Chapter 5. FDEP considers bioassessments a reasonable and appropriate tool for interpreting impairments to the narrative criteria contained in FDEP's water quality standards. How that narrative criteria is to be interpreted regarding bioassessments is set out in the State's listing methodology. The methodology requires a recent verification bioassessment prior to identifying a waterbody as a water quality limited segment based on the narrative criteria. Gathering a verification bioassessment can be both reasonable and appropriate as bioassessments are subject to natural and sampling variability, and a confirmation assessment reduces the risk of improperly identifying a water quality limited segment. However, in certain circumstances a single recent bioassessment can be evidence that a waterbody is not meeting water quality standards. For example, if a bioassessment is also supported by a habitat evaluation or water quality data that would indicate impairment. Under Florida's listing methodology, a waterbody with one failed bioassessment would be included on the State's planning list, but not on the State's section 303(d) list. Therefore, EPA conducted an independent review of planning list waterbodies (Category 3d) to

determine if there were any waterbodies which should have been listed based on existing bioassessment data.

Where a waterbody had one failed bioassessment, EPA looked more closely at the age of the bioassessment, the quality of the bioassessment, any supporting pollutant data, and other more site specific data considerations. Based on this review, EPA asked FDEP for any additional information that may assist with determinations of use impairment in these waterbodies. Other information could include site specific activities conducted in the watershed, habitat investigation results, or other qualitative information that may exist.

The waterbody specific conclusions EPA reached as a result of this review of the planning list (those with at least one failed bioassessment) are as follows:

Table 7: Review of Category 3c Waterbodies for Impaired Biology (and not identified on 1998 303(d) list)			
WBID	Waterbody	IWR Parameter	EPA Conclusion
3325	Alligator Creek	Biology	Do not List. Bioassessment conducted by FDEP was inconclusive regarding status of biology of the waterbody and did not provide evidence that Aquatic Life designated use was not being met.
3422R	Manatee Springs	Biology	List - Two Bioassessments conducted by FDEP concluded that the Waterbody's biology did not support Aquatic Life designated use.
3422S	Fanning Springs	Biology	Do not List. Bioassessment conducted by FDEP was inconclusive regarding status of biology of the waterbody and did not provide evidence that Aquatic Life designated use was not being met.
1609	Direct Runoff to Bay	Biology (Fish Kills)	Based on a review of the documentation, the fish kill was probably caused by low dissolved oxygen levels created by abnormally low tidal conditions. Since the documentation indicates that the kill was not likely caused by a pollutant, EPA is not listing the waterbody as impaired, but agrees with FDEP's decision to conduct further study.

As set out in the table above, EPA has determined that one waterbody, Manatee Springs, should be identified as a water quality limited segment. EPA understands that Florida's Watershed Restoration Act does not allow a water to be added to the section 303(d) list, even where bioassessments clearly evidence impairments to designated uses, unless the pollutant causing the impairment has been identified. EPA has consistently interpreted Section 303(d) of the CWA to require that States list waterbodies that are

impaired even where the specific pollutant causing the impairment is not known, unless the State can demonstrate that non-pollutant stressors cause the impairment. Therefore, EPA has determined that Manatee Spring is impaired and is adding Manatee Springs to the State's section 303(d) list for impaired biology.

Impairments Indicated by Nutrient Information

Florida's water quality standard for nutrients is expressed as a narrative criteria, providing that "[i]n no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna." 62-302.530(48)(b) FAC (Nutrients). The Impaired Waters Rule sets out FDEP's process for application of that narrative criteria for assessment purposes across waterbody types. EPA understands the application of Florida's narrative criteria for nutrients as set out in the IWR as follows:

- S Stream or stream segments shall be listed for nutrient impairment if the following biological imbalances are observed:
 - a) algal mats are present in sufficient quantities to pose a nuisance or hinder reproduction of a threatened or endangered species, or
 - b) annual mean chlorophyll a concentrations are greater than 20 ug/l or if data indicate annual mean chlorophyll a values have increased by more than 50% over historical values for at least two consecutive years.
- S Lakes or lake segments will be listed for nutrients if:
 - a) for lakes with a mean color greater than 40 platinum cobalt units, the annual mean TSI for the lake exceeds 60, unless paleolimnological information indicates the lake was naturally greater than 60, or
 - b) for lakes with a mean color less than or equal to 40 platinum cobalt units, the annual mean TSI for the lake exceeds 40, unless paleolimnological information indicates the lake was naturally greater than 40, or
 - c) for any lake, data indicate that annual mean TSIs have increased over the assessment period, as indicated by a positive slope in the means plotted versus time, or the annual mean TSI has increased by more than 10 units over historical values.
- S Estuaries or estuary segments shall be included on the planning list for nutrients if their annual mean chlorophyll a for any year is greater than 11 ug/l or if data indicate

annual mean chlorophyll a values have increased by more than 50% over historical values for at least two consecutive years.

Establishing chlorophyll a thresholds that identify WQLSs statewide is a very difficult task given the varying natural interactions of the nutrient cycle in any given waterbody. Therefore, EPA has concluded that the IWR process for listing waterbodies for nutrient impairments based on a 50% increase in nutrient levels (chlorophyll a) over historical values, in combination with the consideration of site specific observations, provides a rational and reasonable methodology to apply Florida's approved narrative criteria for nutrients for assessment purposes. These listing procedures provide for a very site specific nutrient criteria interpretation that accounts for the varying natural interactions of the nutrient cycle in any given waterbody. While localized increases in nutrient loadings alone may not cause an imbalance in flora or fauna, such increases provide a good indication that such an imbalance may be likely. Where sufficient site specific data on historical levels or other site specific evidence is not available, however, EPA acknowledges that chlorophyll a thresholds can serve as an acceptable alternative method for identifying water quality limited segments. Therefore, EPA is recognizing that the chlorophyll a levels identified by the IWR for streams and estuaries can serve as a 'backstop' so that known water quality limited segments will not be overlooked due to lack of historical data. It is a reasonable application of the State's approved narrative water quality standard for nutrients for the purpose of making listing decisions based on chlorophyll a numbers as set out in the IWR, pending FDEP's adoption of state numeric criteria for nutrients. Since the narrative criteria application set out in Florida's listing methodology is consistent with Florida's water quality standard for nutrients, EPA is approving FDEP's listing decisions for nutrients in streams and estuaries based on that methodology.

EPA also evaluated FDEP's use of the Trophic State Index (TSI) to determine whether lakes are attaining water quality standards for nutrients. The Trophic State Index (TSI) classifies lakes based on their chlorophyll levels and nitrogen and phosphorus concentrations. It was developed in 1982 in response to EPA's Clean Lakes Program and is documented in the *Classification of Florida Lakes Report* by the University of Florida's Department of Environmental Engineering Sciences. A detailed description of the State's TSI is included in the administrative record for this decision.

The TSI has been used previously by FDEP (Florida 1996 305(b) Report) and has been used for many years to evaluate use support in lakes. FDEP's listing methodology calls for listing lakes if the TSI for the lake exceeds scores set out in the Index. EPA has

determined that use of the TSI in this manner is an appropriate application of the State's water quality standard for nutrients. The scoring scheme set out in the TSI provides for a site specific analysis of increases in key nutrient parameters like nitrogen, phosphorus, and chlorophyll a which could lead to an imbalance in flora or fauna. This analysis in itself is a good, site specific method for identifying waterbodies which are not attaining the State's water quality standard for nutrients. In addition, similar to the use of chlorophyll a data to apply the narrative standard discussed above, the raw scores for TSI parameters serve as a good alternative in the absence of site specific historical data because these scores provide a positive threshold for likely environments where an imbalance of flora or fauna may exist. FDEP's use of the TSI as an application of its narrative criteria for nutrients in lakes is a reasonable method for identifying water quality limited segments for nutrients, pending FDEP's development of state numeric criteria for nutrients for lakes.

Since the narrative criteria application set out in Florida's listing methodology is consistent with Florida's approved water quality standard for nutrients, EPA is approving FDEP's listing decisions for nutrients in lakes based on that methodology. NOTE: Using FDEP's approach to assessing nutrient impairment, the State identified Lake Butler (WBID number 3566) as a water quality limited segment in their 305(b) report. However, FDEP inadvertently did not include Lake Butler in their submittal as an addition to the 303(d) list. EPA is accepting FDEP's assessment approach for the State of Florida for identifying WQLSs for nutrient impairment. However, since this waterbody was left out of the 303(d) list amendment due to administrative error, EPA is adding this waterbody to the 303(d) list.

3. Primary and Secondary Recreational Use Support

Florida's listing methodology sets out two tests for determining whether a waterbody's recreational use is impaired. First, FDEP looks at swimming advisories. Waterbodies which include a swimming area for which a local health department or county government has issued closures, advisories, or warnings based on bacteriological data are listed as impaired when those advisories apply for a total of 21 days or more during a calendar year. However, the methodology provides that closures, advisories, or warnings based on red tides, rip tides, sewer line breaks, sharks, medical wastes, hurricanes, or other factors not related to chronic discharges of pollutants shall not be included in the assessment. For waterbodies considered during this listing cycle, no beach closures, advisories, or warnings based on these circumstances occurred. Therefore exclusion of this type of advisory from the analysis did not factor into the assessment for 303(d) listing

and it was unnecessary for EPA to review this provision further as it had no effect on the list.

Florida's listing methodology also considers ambient bacteria data to the State's water quality standard for fecal coliform and total coliform. For Class III: Recreation use, the bacteria criteria are as follows:

For fecal coliform: Most probable number (MPN) or membrane filter (MF) per 100 ml shall not exceed a monthly average of 200, nor exceed 400 in 10% of the samples, nor exceed 800 on any one day.

For total coliform: MPN or MF counts shall be less than or equal to 1,000 as a monthly average, nor exceed 1,000 in more than 20% of samples examined during any month, nor exceed 2,400 at any time.

Monthly averages for both fecal and total coliform shall be expressed as geometric means based on a minimum of 10 samples taken over a 30 day period.

EPA reviewed the bacteria data associated with Group One waters. No waterbodies had associated bacteria data containing 10 or more samples taken within a 30 day period for either fecal or total coliform. Therefore, neither EPA nor FDEP could assess the water quality of those waterbodies against the monthly average criteria for fecal or total coliform; also, neither EPA nor the State could assess the water quality condition against the total coliform criteria of 1,000 total coliform count at a 20% exceedance within 30 days frequency.

Excursions of the coliform criteria in ambient waterbodies are not only likely, but expected, and can occur without harm or impacts to designated uses. See EPA publication, *Ambient Water Quality Criteria for Bacteria*, 1986. The likelihood of such short term excursions is the reason the criteria is expressed as both a monthly average, a percent sample exceedance, and a daily maximum. In addition to natural variability, there is always a chance for sampling and analysis techniques to effect laboratory results. Given these considerations, EPA reviewed FDEP's listing decisions for coliforms against the State's numeric water quality criteria, accounting for the variability inherent in nature and in sampling and testing procedures.

EPA reviewed the data on each waterbody against the 10% exceedance criteria of 400 for fecal coliform and the 2,400 daily maximum for total coliform set out in Florida's

water quality standards. EPA reviewed the data for trends, levels during critical conditions, and other more site specific data considerations such as waterbody type, to determine if the data indicated a likely current exceedance frequency in sampling of greater than 10% for fecal coliform and a likely exceedance in any given day of the 2,400 count analysis for total coliform.

FDEP evaluated fecal and total coliform data against the 800 and 2,400 daily maximum levels respectively. EPA reviewed waterbody specific coliform data to determine whether the State's methodology for assessing coliform impairment may have failed to identify water quality limited segments. EPA reviewed all unlisted waters with fecal coliform data in Category 2 (Some uses are met; insufficient data to assess whether all uses are met) and Category 3c (Planning List), assessing that data against the 400 in 10% if the samples criteria. EPA also evaluated all unlisted waters for total coliform in Category 3c to check for overwhelming evidence of impairment in smaller data sets.

The waterbody specific results of EPA's review of Category 2 waters for fecal coliform are set out in Appendix E. The table set out in Appendix E identifies specific water quality limited segments that EPA has determined are impaired for fecal coliform. EPA is adding the identified waterbodies to the State's section 303(d) list.

The waterbody specific results of EPA's review of Category 3c waters for fecal and total coliform are set out in the table below. EPA has identified two waterbodies where there is overwhelming evidence that the waterbody is impaired for coliforms. Therefore, EPA is adding the identified waterbodies to the State's section 303(d) list.

Table 9: Review of Waterbodies in Category 3c for both Fecal and Total Coliforms (and not on 1998 303(d) list)			
WBID	Waterbody	IWR Parameter	EPA Conclusion*
2696	Possum Creek	Fecal Coliforms	Do not List (2) '99(1/1) '00(0/2) '02(1/1)
756C	Lower Lake Lafayette	Fecal Coliforms	Do not List (1)
756C	Lower Lake Lafayette	Total Coliforms	Do not List (1)
863	Mall Drainage Ditch	Fecal Coliforms	Do not List (1)
863	Mall Drainage Ditch	Total Coliforms	Do not List (1)
878B	Silver Lake	Fecal Coliforms	Do not List (1)
878B	Silver Lake	Total Coliforms	Do not List (1)
1303	Quincy Creek	Fecal Coliforms	Do not List (2) '97(0/1) '98(1/4) '00(1/3) '02(0/1) ['00 & '02 Data Coded 'Q']
1303	Quincy Creek	Total Coliforms	Do not List (3) 2/9 Exceedances since 1995
3520	Cannon Creek	Total Coliforms	Do not List (2) & (4) '96(½) '97(2/3) '98(1/3)

Table 9: Review of Waterbodies in Category 3c for both Fecal and Total Coliforms (and not on 1998 303(d) list)			
WBID	Waterbody	IWR Parameter	EPA Conclusion*
3626	Pareners Branch	Total Coliforms	List (5) 7/10 Exceedances since 1995
3682	Blue Creek	Fecal Coliforms	List (5) '95(3/7) '00(0/1) '01(1/3) '02(4/4)
3598C	Alligator Creek	Total Coliforms	Do not List (2) & (4) '95(2/6) '98(0/1) '00(½)
3389	Sugar Creek	Fecal Coliforms	Do not List (2) 0 samples since 1995
1325	Tenmile Creek	Total Coliforms	List (2) 0 samples since 1995
1627B	Long Branch Tidal	Fecal Coliforms	Do not List (2) 0 samples since 1995
1627B	Long Branch Tidal	Total Coliforms	Do not List (2) 0 samples since 1995

* Basis for Decision: 1 - No exceedances in entire data set for past 7.5 years. 2 - Insufficient data for assessment. Cannot draw water quality conclusions based on limited data collected intermittently over past 7.5 years. 3 - Insufficient exceedances given the number of samples representing water quality for the system. 4 - Insufficient recent exceedances indicating current conditions of waterbody meet water quality standards. 5 - Sufficient recent exceedances indicating current conditions of waterbody do not meet water quality standards. 6. Given the nature of the waterbody, water quality probably represents natural conditions. If FDEP listed waterbody on the planning list for further study, this is an appropriate step prior to assessment for 303(d) purposes.

4. Fish and Shellfish Consumption Use Support

EPA reviewed FDEP's use of the listing methodology set out in the IWR for assessing fish and shellfish consumption use support (Class II). Using that methodology, FDEP listed a waterbody as impaired for fish and shellfish consumption where:

- a) for Class II waters, the bacteria data meet the exceedance requirements of Table 2 in the IWR (90% confidence that there is a more than 10% exceedance rate) using the applicable Class II bacteriological criteria, or
- b) there is either a limited or no consumption fish consumption advisory, issued by the Department of Health or other authorized governmental entity, in effect for the water segment (the water shall be listed if the fish consumption advisory is based on the statistical evaluation of fish tissue data from at least twelve fish collected from the specific water body and there are sufficient data from within the last 7.5 years to support the continuation of the advisory), or
- c) for Class II waters, the water segment includes an area that has been approved for shellfish harvesting by the Shellfish Evaluation and Assessment Program, but which has been downgraded from its initial harvesting

classification to a more restrictive classification. Changes in harvesting classification from prohibited to unclassified do not constitute a downgrade in classification.

Shellfish Use Support

FDEP's methodology calls for the identification of Class II use impairments to shellfish harvesting based either on a review of water quality data against the Class II criteria or on the Shellfish Evaluation and Assessment Section's (SEAS's) classification system which actively monitors approved shellfish areas (temporarily closing beds, as appropriate), and periodically assesses whether the waters should be reclassified. The State's listing methodology, as set out in the IWR at 62-303.370(3) FAC and 62-303.400(1), provides that a Class II water shall be listed if "the water segment includes an area that has been approved for shellfish harvesting by the Shellfish Evaluation and Assessment Program, but which has been downgraded from its initial harvesting classification to a more restrictive classification." The methodology also provides that a Class II water shall be listed if "the water segment does not meet applicable Class II water quality criteria for bacteriological quality based on the methodology described in section 62-303.320."

For the Group One update, FDEP applied the fecal coliform threshold of 800 CFUs and the total coliform threshold of 2,400 CFUs. These thresholds represent levels to protect recreational use (Class III) and not the shellfish harvesting use (Class II). Therefore, EPA evaluated all Class II waters to the Class II criteria independently from FDEP to determine whether any additional water quality limited segments should be identified.

EPA reviewed FDEP listing decisions regarding shellfish use support to determine whether the State's listing methodology is consistent with Florida's water quality standards. Region 4 created an GIS map with the Water Body ID (WBID) coverages and the shellfish harvesting areas and applicable classifications as reported by the State Shellfish Control Authority (Florida Department of Agriculture and Consumer Services/Division of Aquaculture). Once all applicable WBIDs were identified, the State list was compared to the list of shellfish associated WBIDs and waterbodies already listed were removed from further analysis. Classifications of the remaining shellfish harvesting areas were verified using the most recent classification maps found at the Division of Aquaculture website (www.floridaaquaculture.com).

The State of Florida water quality standards for Class II areas has a bacteriological criterion equivalent to the National Shellfish Sanitation Program (NSSP) Approved classification. The fecal standard is as follows:

Most probable number (MPN) of membrane filter (MF) per 100 ml shall not exceed a median value of 14 with not more than 10% of the samples exceeding 43, nor exceed 800 on any one day.

Therefore, any area classified as anything other than Approved can be considered to not meet water quality standards and should be included on the 303(d) list. See generally EPA's October 24, 2000 memo. However, Areas which are classified as prohibited due to administrative reasons under the NSSP (i.e., proximity to discharge pipes, marinas, lack of water quality data, etc.) are not automatically considered as failing to meet water quality standards. For all prohibited areas in the Category II WBIDs, the Division of Aquaculture was contacted to determine if the prohibited classification was based on administrative conditions or water quality. Division personnel confirmed that all prohibited areas were due to water quality.

EPA also considered the water quality data in FDEP's database. FDEP's database is based on WBIDs, however, which do not cover the same areas as Florida's delineated shellfish beds or the monitoring associated with those beds. EPA was unable at this time to compare the data collected to manage shellfish harvesting use support against criteria for Group 1 shellfish beds and, therefore, was unable to determine using water quality data alone whether the designated use was being supported for those beds. Instead, EPA relied upon Florida's shellfish classification system as an interpretation of data collected for shellfish use support against the State's water quality standard and has determined that the Areas classified as prohibited are impaired. EPA is adding the identified waterbodies to the State's section 303(d) list.

Group 1 Waterbodies Not Classified as Approved and Not Proposed by FDEP for Listing				
WBID	Name	Shellfish Area	DOACS Map #	EPA Conclusion*
1255	Chaires Creek	Chaires Creek	20	List: Classified as prohibited
1297A	Ochlockonee River	Chaires Creek	20	List: Classified as prohibited
1248A	Ochlockonee Bay	Ochlockonee Bay	20	List: Classified as prohibited
		Ochlockonee 1	20	
		Ochlockonee 2	20	
1248B	Ochlockonee Bay	Ochlockonee 1	20	List: Classified as prohibited
		Ochlockonee River	20	

Group 1 Waterbodies Not Classified as Approved and Not Proposed by FDEP for Listing				
WBID	Name	Shellfish Area	DOACS Map #	EPA Conclusion*
8025	Ochlockonee Bay Gulf	Ochlockonee Bay	20	List: Classified as prohibited
		Ochlockonee 2	20	
1239	Direct Runoff to Gulf	Wakulla Zone 1	22	List: Classified as prohibited
1176	Direct Runoff to Bay	Wakulla Zone 1	22	List: Classified as prohibited
1223	Dickerson Bay	Dickerson Bay	22	List: Classified as prohibited
		Levy Bay	22	
		Levy Bay South	22	
		Fiddlers Point	22	
3702	Sanders Creek	Sanders Creek	25	List: Classified as prohibited
3729	Black Point Swamp	Suwannee Reef	30	List: Classified as prohibited
		Suwannee South	30	
		Cedar Key Zone A	30	
		Cedar Key Zone B	30	
		Way Key	30	
		Cedar Key Creeks	30	
1797A	Terra Ceia Bay	Terra Ceia Bay	48	List: Classified as prohibited
3259M	Runoff to Gulf	Marco Island 1	66	List: Classified as prohibited
		Marco Island 2	66	

Fish Consumption Use Support

In evaluating FDEP's use of fish consumption advisories in making listing decisions, EPA first compared the State's listing methodology with federal recommendations (CALM Guidance, July 2002, and October 24, 2000, Policy Memorandum signed by Geoffrey H. Grubbs and Robert H. Wayland), which provides that fish and shellfish consumption advisories should be used as a source of data and information for section 303(d) determinations. In reviewing State methodologies based on advisories, EPA recommends that a State include on its section 303(d) list, at a minimum, waters where a fish or shellfish consumption advisory demonstrates non-attainment of water quality standards. Consumption advisories demonstrate non-attainment of water quality standards where the advisory or classification is based on tissue data, the data are from the specific waterbody in question, and the risk assessment parameters of the advisory or classification are at least as protective as those in the water quality standards.

FDEP identified all waterbodies with posted advisories, where there was waterbody specific fish tissue data collected and analyzed within the past 7.5 years. For all those waterbodies with posted advisories based on tissue data older than the past 7.5

years, FDEP targeted those waterbodies on its 'planning' list for additional data collection. Targeting these waterbodies for additional data collection should provide the information necessary for assessing for this type of designated use support.

After review of FDEP's process for evaluating fish consumption use support, EPA has determined that the State's process, if properly applied, is reasonable for identifying applicable water quality limited segments.

5. Drinking Water Use Support and Protection of Human Health

Assessment of Drinking Water use support can be broken down into the evaluation of three types of criteria: bacteriological criteria, criteria expressed as a maximum concentration, and criteria expressed as an annual average.

Bacteriological Standards

For Class I: Potable Water Supply, the bacteriological water quality standards are as follows:

Fecal coliform: Most probable number (MPN) of membrane filter (MF) per 100 ml shall not exceed a monthly average of 200, nor exceed 400 in 10% of the samples, nor exceed 800 on any one day. Monthly averages shall be expressed as geometric means based on a minimum of 5 samples taken over a 30 day period.

Total coliform: MPN or MF counts shall be less than or equal to 1,000 as a monthly average, nor exceed 1,000 in more than 20% of samples examined during any month, nor exceed 2,400 at any time.

In the Group One Basins, there are relatively few waters that are designated as Potable Water Supplies (Class I). EPA reviewed bacteriological water quality data for Class I waters in the same manner and using the same standard as used to review Recreation waterbodies (Class III), since those two standards are the same, except as to the number of samples required to calculate a monthly average. Waterbody specific results of EPA's review are set out in the table below. EPA has identified two waterbodies where there is clear evidence that the waterbody is impaired for coliforms. Therefore, EPA is adding the identified waterbodies to the State's section 303(d) list.

Table 10: Review of Bacteriological Water Quality Data for unlisted Class I Waterbodies			
WBID	Waterbody	IWR Parameter	EPA Conclusion*
1303	Quincy Creek	FC & TC (Fecal Coliform & Total Coliform)	FC: Do not List (4) '95(1/1) '96(1/5) '97(0/1) '98(1/4) '00(1/3) '02(0/1) TC: Do not List (3) 2/9 Exceedances since 1995
1301	Holman Creek	FC & TC	Do not List (2) No data.
3212A	Lake Okeechobee	FC & TC	Do not List (2) No data.
3212C	Lake Okeechobee	FC & TC	Do not List (2) No data.
3212D	Lake Okeechobee	FC & TC	Do not List (1) No exceedances for FC & TC.

Table 10: Review of Bacteriological Water Quality Data for unlisted Class I Waterbodies			
WBID	Waterbody	IWR Parameter	EPA Conclusion*
3212E	Lake Okeechobee	FC & TC	FC: Do not List (1) TC: Do not List (2) 0/7 samples exceed 2,400 counts and 1/7 samples exceed 1,000 counts all in 2000.
3212F	Lake Okeechobee	FC & TC	Do not List (1) No exceedances for FC & TC.
3212G	Lake Okeechobee	FC & TC	Do not List (1) No exceedances for FC & TC.
3212H	Lake Okeechobee	FC & TC	Do not List (1) No exceedances for FC & TC.
3212I	Lake Okeechobee	FC & TC	Do not List (2) No data.

* Basis for Decision: 1 - No exceedances in entire data set for past 7.5 years. 2 - Insufficient data for assessment. Cannot draw water quality conclusions based on limited data collected intermittently over past 7.5 years. 3 - Insufficient exceedances given the number of samples representing water quality for the waterbody. 4 - Insufficient recent exceedances indicating current conditions of waterbody may not exceed water quality standards. 5 - Sufficient recent exceedances indicate current conditions of waterbody do not meet water quality standards. 6. Given the nature of the waterbody, water quality probably represents natural conditions.

Criteria Expressed as a Maximum Concentration

FDEP's listing methodology provides that, where a human health based criteria is expressed as a maximum, a waterbody will be listed if data meets the exceedance frequencies outlined by Table 2 in the IWR (representing a 90% confidence that the exceedance rate is greater than 10%.) For the following pollutants, Florida's water quality standards establish a lower numeric criteria applicable to Class I waterbodies than for Class III waterbodies (aquatic life use support):

Antimony, barium, benzene, chlorides, dissolved solids, fluorides, halomethanes, iron, nitrate, 2,4,5 TP, 2,4-D, 2-chlorophenol, 2,4-dichlorophenol, 2,4,6-trichlorophenol, 2,4-dinitrophenol, acenaphthylene, anthracene, flouranthene, fluorene, pyrene, 1,1,2,2-tetrachloroethene, thallium, and trichloroethene. 62-302.530 F.A.C.

For Group One waterbodies, the only ambient data available in sufficient quantity for assessment was for dissolved solids (Florida's approved water quality standard for Class I waters requires less than or equal to 1,000 mg/L), iron (Florida's approved water quality standard for Class I waters requires less than or equal to 0.3 mg/L), and nitrate (Florida's approved water quality standard for Class I waters requires less than or equal to 10 mg/L). When the Region reviewed data for these parameters under the Aquatic Life Use Support, any waterbody that was also designated as a Class I waterbody was reviewed against the more stringent water quality criteria level. The results of those reviews are set out in more detail in the Aquatic Life use support section above.

Criteria Expressed as an Annual Average

FDEP's listing methodology for identifying water quality limited segments for criteria expressed as an annual average provide that a waterbody will be determined to be impaired where the annual average of samples for that criteria is exceeded for any given year. 62-303.480(2) FAC. Evaluating ambient samples in this way against water quality standards expressed as an annual average is a reasonable way to identify water quality limited segments. This methodology conservatively applies ambient samples in the same manner that the water quality standard is expressed. Florida's water quality standards for the following pollutants are expressed as an annual average:

Beryllium, 1,1-Dichloroethene, Dichloromethane, 2,4-Dinitrotoluene, Bromoform, Chlorodibromomethane, Chloroform, Chloromethane (methyl Chloride), dichlorobromomethane, hexachlorobutadiene, Aldrin, beta-hexachlorocyclohexane (b-BHC), Chlordane, DDT, dieldrin, heptachlor, lindane, pentachlorophenol, 2,4,6-trichlorophenol, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), 1,1,2,2-tetrachloroethane, tetrachloroethylene, and trichloroethylene.

For Group One waterbodies, no data were identified in either Category 2 or Category 3c for these pollutants.

C. 303(d) List of Impaired Waters (40 CFR 130.7(b)(4))

FDEP submitted its 2002 section 303(d) list as a Group One update which amends the State's previously approved 1998 303(d) list. Following EPA's decision to partially approve and add waters to Florida's 2002 submission, the current 303(d) list in the State of Florida includes all 1998 approved 303(d) listed waters, approved FDEP additions to the section 303(d) list, and EPA additions to the list, and does not include approved FDEP delistings from the 1998 section 303(d) list.

Current 303(d) List =	Approved 1998 303(d) List
(+)	Approved Group One FDEP Additions
(+)	Group One EPA additions
(-)	Approved FDEP Delistings

The complete section 303(d) list for the State of Florida as of the date of this action by EPA is contained in Appendix L.

1. FDEPs Addition of Water Quality Limited Segments

FDEP identified additional water quality limited segments in the Group One basins, consistent with §303(d) and EPA's implementing regulations. EPA is approving the addition of those water quality limited segments to Florida's section 303(d) list. The newly listed waterbodies are identified in Appendix I.

2. Section 303(d) Delistings (40 CFR 130.7(b)(6)(iv))

FDEP has not included certain water quality limited segments on the Group One Update which had been included on the previously approved 1998 section 303(d). As provided in 40 CFR 130.7(b)(6)(iv), EPA requested that the State demonstrate good cause for not including these waters.

The State did not include certain waterbodies in the Suwannee River and in Tampa Bay because the State believes there are other pollution control requirements affecting those waters that will result in attainment of water quality standards. EPA's review of FDEP's listing decisions as to those waterbodies is set out below.

Waterbody specific information on the remainder of the waterbodies that had been included on the 1998 section 303(d) list but were not included on the Group One Update, the good cause justification submitted by FDEP, and EPA's conclusions are included in Appendix J. For those waterbodies where EPA determined FDEP has not demonstrated good cause, EPA is adding the identified waterbodies to the State's section 303(d) list.

3. Other Pollution Control Requirements (40 CFR 130.7(b)(1))

EPA's regulations provide that TMDLs are not required for waterbodies where "[o]ther pollution control requirements (e.g., best management practices) required by local, State, or Federal authority are [] stringent enough to implement any water quality standards [WQS] applicable to such waters." 40 C.F.R. § 130.7(b)(1)(iii). Consistent with this regulation, EPA's 2002 Integrated Water Quality Monitoring and Assessment Report Guidance suggests that assessment units (AUs) not be listed in Section 5 of a state's Integrated Report (waterbodies that still require TMDLs) where other pollution control requirements required by local, state, or federal authority are stringent enough to implement any water quality standard (WQS) applicable to such waters. EPA expects that these requirements must be specifically applicable to the particular water quality problem

and be expected to result in standards attainment in the near future. Monitoring should be scheduled for these AUs to verify that the water quality standard is attained as expected. FDEP has removed waterbodies in the Suwannee River and Tampa Bay from the Group One Update on this basis.

Suwannee River

FDEP did not identify the following waterbodies as water quality limited segments needing a TMDL because proposed pollution control requirements are reasonably expected to result in the attainment of the water quality standard in the near future:

Waterbody Name	Waterbody ID	Listed Parameter
Lower Suwannee River	3422	Nutrients (Algal mats reported in FDEP's 305(b) report.)
Lower Suwannee River	3422A	Nutrients (Algal mats reported in FDEP's 305(b) report.)
Lower Suwannee River*	3422B	DO (Verified as impaired.)
Lower Suwannee River*	3422B	Nutrients (Algal mats reported in FDEP's 305(b) report.)
Lower Suwannee Estuary	3422D	Nutrients (Verified as impaired based on data outside of STORET according to FDEP's 305(b) report.)

Note: * delisted by FDEP from the previously approved section 303(d) list

EPA has reviewed the documentation submitted by FDEP and is currently unable to approve FDEP not including these waterbodies on the State's section 303(d) list. While EPA is fully supportive of the efforts of the Suwannee Partnership Agreement and believes that these efforts are an excellent approach for achieving water quality standards in the basin, those efforts do not currently contain all the elements necessary to determine that identification as water quality limited segments is no longer necessary. EPA recognizes that the efforts of the partnership have realized great success in gaining commitments in the Middle Suwannee that should result in water quality improvements once executed. However, similar commitments have not been initiated in the Upper Suwannee and Santa

Fe watersheds. Attaining water quality standards in the Suwannee basin, including the estuary, will require that control strategies be in place in the Upper Suwannee and Santa Fe watersheds as well as the Middle Suwannee.

For the reasons set out above, EPA is adding the identified waterbodies to the State's section 303(d) list. Based on the efforts of the Suwannee River Partnership to date, EPA believes that the requirements described above will likely be met as the Partnership expands its activities beyond the Middle Suwannee watershed. Therefore, EPA will reconsider this decision when FDEP submits its section 303(d) list update for Group One Basins in 2007. Also, because EPA believes the Suwannee Partnership is currently the best approach to water quality improvement in the watershed, EPA is assigning these water quality limited segments a low priority, which means the segments will not be scheduled for TMDL development in the near future.

Tampa Bay

FDEP requested that the following waterbodies not be identified as water quality limited segments and included on the 303(d) list because proposed pollution control requirements are reasonably expected to result in the attainment of the water quality standards in the near future:

Waterbody Name	Waterbody ID	Listed Parameter
Upper Hillsborough Bay*	1558E	Nutrients (approved TMDL)
Lower Hillsborough Bay	1558D	Nutrients (approved TMDL)
Old Tampa Bay*	1558H	Nutrients (approved TMDL)
Old Tampa Bay*	1558I	Nutrients (approved TMDL)
Upper Tampa Bay	1558C	Nutrients (approved TMDL)
Direct Runoff to Bay*	1624	Nutrients (approved TMDL)
Frenchman's Creek - Basin U*	1709F	Nutrients (Chlorophyll a currently not elevated.)
Big Bayou - Basin W*	1709	Nutrients (Chlorophyll a currently not elevated.)

Note: * will be delisted from the 303(d) list

A TMDL addressing nutrients in Tampa Bay was established by FDEP and approved by EPA on June 18, 1998. Those WBIDs covered by the TMDL need not be identified as a water quality limited segment for the updated section 303(d) list, since the list identifies waterbodies “still requiring a TMDL.” 40 C.F.R. § 130.7(b). The WBIDs addressed in the TMDL are 1558E, 1558D, 1558H, 1558I, 1558C, and 1624. The decision not to list those WBIDs is consistent with federal regulation at 40 C.F.R. §130.7(b) and is approved by EPA.

EPA reviewed nutrient impairment indicators in 1709 and 1709F (DO and Chl a) to evaluate impairment in those waterbodies and whether the efforts underway in Tampa Bay can be reasonably anticipated to return those WBIDs to attainment. For both waterbodies the ambient dissolved oxygen (DO) concentrations met water quality standards, indicating that nutrients were not depressing DO. Also, for both waterbodies, chlorophyll a concentrations appeared elevated only in 1998 and have not been elevated since that time. Given that evidence, the waterbodies currently do not contain an imbalance of flora or fauna.

These two WBIDs are adjacent to the Middle Tampa Bay and Lower Tampa Bay WBIDs and are essentially the coastal inlets to the Bay. EPA determined that the Middle and Lower Tampa Bay WBIDs in fact contained relatively low Chlorophyll a levels which indicate that there is no longer an imbalance of flora or fauna in the waters. Given evidence that the waterbodies meet standards, EPA evaluated what effect the control strategies may have had on the waterbodies condition. A data review revealed that phosphorus levels in those Tampa Bay WBIDs have been reduced from concentrations ranging from around 0.15 to 0.25 mg/L in the 1980s to current levels ranging from around 0.09 to 0.12 mg/L. Based on the analysis of water quality in the adjacent bay segments resulting from the success at reducing phosphorus concentrations through the efforts described by FDEP and the Tampa Bay partnership, EPA has concluded that these control strategies have resulted in the attainment of water quality standards in the Middle and Lower Tampa Bay, and can reasonably be expected to maintain attainment of standards in WBIDs 1709 and 1709F.

For the above reasons, these waterbodies will not be identified as water quality limited segments and will not be included on the 303(d) list. EPA will periodically reevaluate the need to identify WBIDs 1709 and 1709F as water quality limited segments if further monitoring for nutrient parameters shows evidence of impairment.

4. EPA Identified Waters

Based on its review and analysis of FDEP's listing decisions, EPA has decided to add waters to Florida's section 303(d) list. The additional water quality limited segments identified by EPA are set out in Appendix K.

D. Priority Ranking and Targeting (40 CFR 130.7(b)(4))

Pursuant to the listing methodology set out in the IWR, FDEP prioritized water quality limited segments for TMDL development according to the severity of the impairment and the designated uses of the segment, taking into account the most serious water quality problems, most valuable and threatened resources, and risk to human health and aquatic life. Waterbodies included on the section 303(d) list were prioritized as high, medium, or low priority.

Waters were designated high priority if (a) the impairment poses a threat to potable water supplies or to human health, or (b) the impairment is due to a pollutant that has contributed to the decline or extirpation of a federally listed threatened or endangered species. In contrast, waters were designated low priority if (a) the water was listed due to fish consumption advisories for mercury (because of the uncertainty related to how to address mercury contamination in TMDLs), or (b) the water was an urban drainage ditch that was listed only due to exceedances of the DO criteria.

All other water quality limited segments were designated medium priority and were prioritized based on the following factors:

- (1) the presence of Outstanding Florida Waters;
- (2) the presence of water segments that fail to meet more than one designated use;
- (3) the presence of water segments that exceed an applicable water quality criterion or alternative threshold with a greater than twenty-five percent exceedance frequency with a minimum of a 90 percent confidence level;
- (1) the presence of water segments that exceed more than one applicable water quality criteria; and
- (2) administrative needs of the TMDL program, including meeting a TMDL development schedule agreed to with EPA, basin priorities related to following the Department's watershed management approach, and the number of administratively continued permits in the basin.

Once the priority of each water body was determined, FDEP established the TMDL development schedule for each water and the watershed management cycle for the Group One Basins.

E. Schedule for Development of TMDLs for Listed Waters and Pollutants

Appendix L shows the priority and projected year for TMDL development for each waterbody included on the section 303(d) list. Group One waters with high priority were generally scheduled for TMDL development by FDEP during the current watershed cycle, while medium and most low priority waters were scheduled for the next cycle (2007). All mercury TMDLs were scheduled for development in 2011, regardless of priority. All water quality limited segments identified by EPA in Table 10 have been given low priority and are currently unscheduled for TMDL development, unless they are subject to the Consent Decree schedule described below.

TMDL development will also follow the schedule set out in the Consent Decree in Florida Wildlife Federation, et al. v. Carol Browner, et al., Civil Action No. 4: 98CV356-WS (Northern District, Florida). All waterbodies on the 1998 list that were not delisted are scheduled for TMDL development according to this consent decree.

Final Recommendation on Florida's 2002 Section 303(d) List Submittal

After careful review of the final 303(d) list submittal package, the Water Management Division recommends that EPA Region 4:

- A. approve the State of Florida's Amendments to the 1998 section §303(d) list as identified in Appendices I and J;
- B. disapprove specific failures to identify water quality limited segments as identified in Appendices E, F, and H;
- C. disapprove specific delistings requests as identified in Appendix J;
- D. add the water quality limited segments identified in numbers 2 and 3 above to the Florida section 303(d) list.

EPA's approval of Florida's Section 303(d) list extends to all waterbodies on the list with the exception of those waters that are within Indian Country, as defined in 18 U.S.C. Section 1151. EPA is taking no action to approve or disapprove the State's list with respect to those waters at this time. EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under Section 303(d) for those waters.

I concur in this decision document and the recommendations contained herein.

<signed>

6/11/2003

J.I. Palmer, Jr.
Regional Administrator

Date

Appendix A

Selecting a Random Sample of Streams for Review

Review of waterbodies involves the comparison of actual water quality data against FDEP's approved water quality standards to assess for the identification of water quality limited segments. Since neither time nor resources allow a complete census of all waterbodies that were listed in Category 2 for naturally variable parameters or Category 3b for all parameters, EPA used a random sample of waterbodies that is drawn from the total population. EPA then uses the statistical sample to draw reasonably accurate assumptions about the state of waterbodies for the total population. The development of a proper sampling technique can greatly affect the accuracy of the results. The sample must be large enough to give a good representation of all waterbodies, but small enough to be manageable.

Step 1: Defining Variables

A crucial factor in this statistical technique is the proportion statistic, P , which represents the proportion of waterbodies that are found to be a water quality limited segment that the State has identified otherwise. Although this statistic is the very one that EPA is trying to determine, the Agency must initially make an educated estimate of the P statistic. EPA based this estimate on previously conducted review of waterbodies in category 2 for toxicity based criteria and considered providing a conservative estimate that would increase the number to review. EPA evaluated the effect on the volume of the random sample based on a expected discrepancy rate of 2% (most likely), 5%, and 10%. As the percent expected discrepancy rate increased, the sample size increased. Therefore, to be conservative, EPA selected an above expected 5% expected discrepancy rate.

Another factor for selecting a sample size is the confidence level, Z statistic. To be conservative, EPA selected a confidence level of 95% to ensure the greatest possible avoidance of error. Another important component of the confidence interval is the error tolerance, e . This is a measure of the amount of error that EPA is willing to accept in estimating the proportion of waters with unidentified impairments. The error tolerance is closely related to the sample size. The more error allowable in the study, the smaller the sample size may be. The tradeoff is that results are less reliable. To improve the sample's reliability, a low error tolerance and thus, a larger sample size should be used.

Step 2: Determining the Appropriate Sample Size

An essential component of this review is to determine the adequate sample size (of waterbodies) which will provide an accurate representation of all waterbodies with data for naturally variable parameters in category 2 of the State's integrated report. The optimum sample size is then calculated using the estimated P, the appropriate confidence level (Z statistic), and the error tolerance level (e). The formula for determining the optimum sample size is :

$$n = (Z^2/e^2) * (P(1-P))$$

where: Z = 1.96

e = 0.05

P = 0.05

The estimated value of n represents the optimum sample size, based on an infinitely large population. However, since the population in this analysis is finite (i.e., the total number of actions in the state), the sample size must be adjusted. The following equation is used to calculate the adjusted sample size based on the size of the population:

$$n^* = (n)(N) / (n+(N-1))$$

where: n* = the adjusted minimum sample size needed to yield statistically significant results (rounded)

n = the original sample size based on an infinite population (generated above)

N = the size of the population (total number of waterbodies in category 2 for naturally variable pollutants)

N for category 3b = 1,382

N for category 2 = 710

This method yielded the minimum number of waterbodies in category 3b which were reviewed in the state, 69, and the minimum number of waterbodies in category 2 which were reviewed in the state, 66.

Step 3: Selecting the random sample.

Once the sample size water determined, EPA used a random number generator to select the waterbodies for review. EPA assigned each waterbody in category 3b a number between 1 and 1,382 and assigned each waterbody in category 2 a number between 1 and 710. Then used the random number generator to select a waterbody number to review.

Example 1: For category 3b waters, the random number generator may produce the number 0.6553, that number was then multiplied with 1,382 to yield 905.6. That number was rounded and waterbody 906 was selected for review of the 1,382. This was done until 69 waterbodies were selected for review. That list has been reproduced, with EPA's conclusions, in Appendix F.

Example 2: For category 2 waters, the random number generator may produce the number 0.24675, that number was then multiplied with 710 to yield 175.19. That number was rounded and waterbody 175 was selected for review of the 710. This was done until 66 waterbodies were selected for review. That list has been reproduced, with EPA's conclusions in Appendix E.

Appendix B

EPA's Position on Listing Impairments Without Knowledge of the Causative Pollutant

The following position was taken by EPA in litigation in the 8th Circuit challenging EPA's approval of Missouri's decision to list the Mississippi and Missouri Rivers even though the State of Missouri did not identify the pollutants causing the impairment. The position explains EPA's interpretation of the Clean Water Act and the listing regulations. The following paragraph is a key excerpt from the brief EPA filed in the Eighth Circuit (EPA was defending a district court decision dismissing the challenge by the Missouri Soybean Association) (page 51 of that brief):

EPA's implementing regulations further require the state to identify the pollutants causing the impairment. 40 C.F.R. 130.7(b)(4). EPA has interpreted this regulation, which was designed to ensure that states provide as much specific information as possible about the nature of impairments on their lists, to require states to list impaired waters even if a specific pollutant has not been identified at the time of the listing. See Wayland, *supra*, Fed. App. 54 ([W]here a water is impaired but a specific pollutant has not been identified, States should, if possible, indicate on the 1998 State section 303(d) lists the class of pollutants (e.g., metals or nutrients) causing, or believed to be causing, the impairment.) (emphasis in original). In other words, if a state believes that a water is impaired by a pollutant, but cannot identify the specific pollutant, or if a water is impaired by multiple, as-of-yet unidentified pollutants, the water qualifies for inclusion on the 303(d) list. The regulations require a state to list a water even if it is unsure of the pollutant associated with an impairment. MSA's contrary argument would turn the regulation on its head. MSA would require EPA to disapprove the listing of a water for which a state has data or information indicating that it is not attaining water quality standards simply because a state cannot identify the specific pollutant.

EPA has made similar statements in the district court brief, including: "**Contrary to the argument presented by MSA, EPA's regulations do not allow States not to list waters which are impaired simply because they are unsure of the**

pollutant associated with the impairments. Only if the State is certain that an impairment is not associated with a pollutant may a State *choose* not to list an impaired waterbody." EPA's Cross Motion for Summary Judgment, page 25 (filed 9/29/00).

Appendix C

Analysis of Random Sample of Florida Waters in Integrated Report Category '3b'						
#	Basin	Planning Unit	WBID	Waterbody	Parameter	EPA Conclusion*
25	Everglades-West Coast	Southwest Coast	3259T	Lake Avalon, Mid-Lake	Fecal coliforms	Do not List (1)
27					Turbidity	Do not List (1)
44						Do not List (2) - No Data
50						Do not List (2) - 1
51	Ocklawaha	Lake Griffin	2789B 2803A	Doe Pond Holly Lake		Sample/Parameter
60						Do not List (1)
67						Do not List (2) - 2
108						Samples/Parameter
139	St. Marks-Ochlockonee	Lake Iamonia	564C	Petty Gulf Lake	DO	Do not List (2) - 1
211						Do not List (1)
214						Do not List (2) - 2 to 4
220						Samples/Parameter
246		North Ochlockonee River	1003 1054 995 410	Clear Lake Black Creek Lost Creek Willacoochee Creek	Total coliforms Fecal coliforms Fecal coliforms Total coliforms	Do not List (1)
262						Do not List (4) 2000(3/7), 2001(0/11)
264						Do not List (1)
280						Do not List (1)
288		South Ochlockonee River	576	Unnamed Run	Total coliforms Turbidity	Do not List (1)
289						Do not List (1)
378						Do not List (1)
397						Do not List (1)
411		St. Marks River	1297B	Ochlockonee River	Un-ionized Ammonia	Do not List (1)
432						Do not List (2) 1/ 3
492						Do not List (1)
524						Do not List (1)
550	Suwannee River	Aucilla River	965	Sweetwater Branch	Fluoride	Do not List (2) 1/1
559						Do not List (2) 1/1
576						Do not List (1)
580						Do not List (1)
593		Telogia Creek	793Y 775	St. Marks Spring Carnigan Branch	Total coliforms Turbidity	Do not List (1)
619						Do not List (1)
						Do not List (1)
						Do not List (1)
		Aucilla River	3310	Aucilla River	Fluoride	Do not List (1)
						Do not List (1)
						Do not List (1)
						Do not List (1)
		Fenholloway River	3473B	Fenholloway Below Pulp Mill	Lead	Do not List (1)
						Do not List (1)
						Do not List (1)
						Do not List (1)
		Fenholloway River	3473C	Fenholloway Above Pulp Mill	Zinc	Do not List (2) No Data
						Do not List (2) No Data
						Do not List (2) No Data
						Do not List (2) No Data
		Lower Suwannee	3422N	Hart Spring	Un-ionized Ammonia	Do not List (1)
						Do not List (1)
						Do not List (1)
						Do not List (1)
		Middle Suwannee	3480	Bethel Creek	DO	Do not List (2) ½
						Do not List (2) ½
						Do not List (2) ½
						Do not List (2) ½
			3496	Little River	Fecal coliforms	Do not List (1)
						Do not List (1)
						Do not List (1)
						Do not List (1)
			3422C	Townsend Pond Near May	Fecal coliforms	Do not List (1)
						Do not List (1)
						Do not List (1)
						Do not List (1)

Analysis of Random Sample of Florida Waters in Integrated Report Category '3b'						
#	Basin	Planning Unit	WBID	Waterbody	Parameter	EPA Conclusion*
620	Tampa Bay	Santa Fe River	3422P	Mearson Spring	Total coliforms	Do not List (1)
638					Un-ionized	Do not List (1)
691					Ammonia	Do not List (1)
713					Conductivity	Do not List (1)
757					Fecal coliforms	Do not List (1)
768					Turbidity	Do not List (2) No Data
791					Zinc	Do not List (2) No Data
807					DO	Do not List (2) No Data
819					Turbidity	Do not List (1)
850					Turbidity	Do not List (2) No Data
852					Fecal coliforms	Do not List (1)
882					Fluoride	Do not List (2) No Data
885					DO	Do not List (1)
909					Total coliforms	Do not List (1)
950					Un-ionized	Do not List (1)
952					Ammonia	Do not List (1)
966					DO	Do not List (1)
977					Turbidity	Do not List (1)
1003					Conductivity	Do not List (1)
1027					Conductivity	Do not List (2) No Data
1058					Conductivity	Do not List (1)
1072					Conductivity	Do not List (1)
1077					Conductivity	Do not List (1)
1078					Conductivity	Do not List (2) No Data
1089					Conductivity	Do not List (1)
1104					Conductivity	Do not List (1)
1106					Conductivity	Do not List (1)
1119					Iron	Do not List (2) 2/3
1141					Iron	Do not List (2) 1/3
1185					Conductivity	Do not List (2) 2/2
1213					Conductivity	Do not List (1)
1245					Un-ionized	Do not List (1)
1249					Ammonia	Do not List (1)
1254					Fecal coliforms	Do not List (1)
1301					Fecal coliforms	Do not List (1)
1312					Iron	Do not List (2) 2/2
1314					Iron	Do not List (2) 2/2
1353					Fecal coliforms	Do not List (3) 2/62
					1/32 Exceedances	Do not List (1)
					Fecal coliforms	Do not List (2) 2/3
					Iron	Do not List (2) 2/3
					Fecal coliforms	Do not List (1)
					DO	Do not List (2) 1/6 in Since 1995

Analysis of Random Sample of Florida Waters in Integrated Report Category '3b'						
#	Basin	Planning Unit	WBID	Waterbody	Parameter	EPA Conclusion*
1381		Tributary Lower Tampa Bay	8049A	Pass-A-Grille Beach	Fecal coliforms	Do not List (3) 0/26

* Basis for Decision included in parentheses: 1 - No exceedances in entire data set for past 7.5 years. 2 - Insufficient data for assessment. Cannot draw water quality conclusions based on limited data collected intermittently over past 7.5 years. 3 - Insufficient exceedances given the number of samples representing water quality for the waterbody based on a site specific review (see detailed discussion in text). 4 - Insufficient recent exceedances indicating current conditions of waterbody may not exceed water quality standards. 5 - Sufficient recent exceedances indicate current conditions of waterbody do not meet water quality standards. 6. Given the nature of the waterbody, water quality probably represents natural conditions. Ratios express the number of samples results with analytical results above the criteria in relation to the total number of samples (number of exceedances/ number of samples).

Appendix D

Analysis of Random Number of Florida Waters in Category 2 for Naturally Variable Pollutant Standards (based on Oct. 1, 2002 Integrated Report)					
No.	Basin	Waterbody	WBID	Parameter	EPA Conclusion*
2	Everglades - West Coast	Estero Bay Wetlands	3258A	Turbidity	Do not List(1)
4		Hendry Creek	3258B	Turbidity	Do not List(3) 1/176 Exceedances
13		Tenmile Canal	3258G	Fecal coliforms	Do not List(3) 9/289
24		L-28 Gap	3269	Turbidity	Do not List(3) 2/540
26		Golden Gate Canal	3259F	Turbidity	Do not List(1)
35		Runoff to Gulf	3259N	Turbidity	Do not List(3) 2/145
39		Ferguson River	3259P	DO	Do not List(3) 1/65
48		Southwest Coast Gulf 4	8064	DO	Do not List(3) 1/70
55	Lake Okeechobee	Lake Okeechobee	3212A	Turbidity	Do not List(3) 50/556
81		Lake Apopka Outlet	2835A	Turbidity	Do not List(3) 6/161
86	Ocklawaha River	Silver River	2772	Turbidity	Do not List(1)
92		Orange Creek	2747	Total coliforms	Do not List(3) 1/26
98		Lake Hiawatha	2839B	Turbidity	Do not List(1)
106		Lake Louisa	2839J	DO	Do not List(1)
122	St. Marks - Ochlockonee	Direct Runoff to Bay	1239	Turbidity	Do not List(1)
123		Ochlockonee Bay Gulf	8025	DO	Do not List(1)
143		Lower Lake Lafayette	756C	Turbidity	Do not List(1)
147		Caney Branch	716	Conductivity	Do not List(1)
154		Munson Slough (above lake)	807D	Turbidity	Do not List(3) 3/27
157		Central Drainage Ditch	857	Conductivity	Do not List(3) 6/65
160		St. Augustine Branch	865	Conductivity	Do not List(1)
163		Lost Creek	995	Conductivity	Do not List(1)
172		Ochlockonee River	1297F	Turbidity	Do not List(3) 5/49
185		Sopchoppy River	998	DO	Do not List(1)
195		Chaires Creek	1255	DO	Do not List(3) 1/69
214		Burnt Mill Creek	918	Conductivity	Do not List(1)
225	Suwannee River	Alapaha River	3324	DO	Do not List(1)
259		Fenholloway above Pulp Mill	3473C	Conductivity	Do not List(3) 1/24
302		Convict Spring	3422V	Conductivity	Do not List(1)
304				Turbidity	Do not List(1)
306		Telford Spring	3422X	DO	Do not List(7) Since springs are groundwater fed, dissolved oxygen is usually very depressed because of the lack of oxygen sources underground.
311		Falmouth Spring	3422Z	DO	Do not List(1)
323		Cedar Key Park	8037A	Fecal coliforms	Do not List(3) 2/105
331		Butler (Lilly) Creek	3705	Turbidity	Do not List(1)
334		Direct Runoff to Gulf	3724	Turbidity	Do not List(3) 0/238

Analysis of Random Number of Florida Waters in Category 2 for Naturally Variable Pollutant Standards (based on Oct. 1, 2002 Integrated Report)					
No.	Basin	Waterbody	WBID	Parameter	EPA Conclusion*
335	Tampa Bay	Spring Warrior Creek	3556A	Conductivity	Do not List(3) 1/16
338				Turbidity	Do not List(1)
348		Alligator Lake	3516	Total coliforms	Do not List(3) 2/24
353		Ichetucknee River	3519	DO	Do not List (7) Likely natural conditions because the river is spring fed.
355				Fecal coliforms	Do not List (2) 1/1
361		Lake Crosby	3593	DO	Do not List (1)
362				Fecal coliforms	Do not List (1)
381		Cow Creek	3649	Total coliforms	Do not List (3) 1/12
385		Turkey Creek	3681	Fecal coliforms	Do not List (2) 1 / 2
386				Turbidity	Do not List (1)
407		Alligator Creek	3598C	Turbidity	Do not List (1)
442		Blue Spring	3605X	Conductivity	Do not List (1)
443				Turbidity	Do not List (1)
462		Steinhatchee River	3573A	Turbidity	Do not List (1)
482		Little Creek	3368	Conductivity	Do not List (1)
491		Roaring Creek	3392	Fecal coliforms	Do not List (2) No Data
507		Suwannee River (Upper)	3341B	Conductivity	Do not List (1)
517		Sheephead Creek	1326	DO	Do not List (3) 8/131
553		Lake Cherry	3322	Total coliforms	Do not List (1)
569		Sweetwater Creek - Upper	1516	Fecal coliforms	Do not List (3) 7/88
574		Cow Branch	1529	Total coliforms	Do not List (4) 5/34
578		Moccasin Creek	1530	Turbidity	Do not List (3) 1/115
592		Tampa Bay Lower	1558A	Total coliforms	Do not List (3) 2/49
594				Turbidity	Do not List (3) 14/3,736
640		Old Tampa Bay	1558I	Total coliforms	Do not List (3) 8/145
641				DO	Do not List (3) 31/507
643		Channel G	1563	Fecal coliforms	List (5) 23/96
667		Delaney Creek	1605	Turbidity	Do not List (3) 1/83
688		Coffeepot Bayou	1700	Total coliforms	Do not List (4) '95(4/15) '96(2/23) No recent data.
692		Big Bayou - Basin W	1709	Turbidity	Do not List (1)
695		Little Bayou - Basin Q	1709D	Turbidity	Do not List (1)

* Basis for Decision included in parentheses: 1 - No exceedances in entire data set for past 7.5 years. 2 - Insufficient data for assessment. Cannot draw water quality conclusions based on limited data collected intermittently over past 7.5 years. 3 - Insufficient exceedances given the number of samples representing water quality for the waterbody based on a site specific review (see detailed discussion in text). 4 - Insufficient recent exceedances indicating current conditions of waterbody may not exceed water quality standards. 5 - Sufficient recent exceedances indicate current conditions of waterbody do not meet water quality standards. 6. Given the nature of the waterbody, water quality probably represents natural conditions. Ratios express the number of samples results with analytical results above the criteria in relation to the total number of samples (number of exceedances/ number of samples).

Appendix E

Analysis of Waterbodies in Category 2 for Fecal Coliforms for Non-Shellfish Designated Areas			
WBID	Waterbody	Exceedances/ total samples	EPA Conclusion*
Everglades - West Coast Basin			
3258A	Estero Bay Wetlands	0/63	Do not List (1)
3258B	Hendry Creek	12/148	Do not List (3)
3258C	Estero Bay Drainage (Mullock Creek)	24/288	Do not List (3)
3258C	Estero River	12/174	Do not List (3)
3258E	Imperial River	37/128	List (5)
3258G	Tenmile Canal	13/446	Do not List (3)
3258H	Spring Creek	1/71	Do not List (3)
3258I	Estero Bay	0/545	Do not List (1)
3261C	Barron River Canal (north)	0/42	Do not List (1)
3259L	Blackwater River	8/145	Do not List (3)
3259N	Runoff to Gulf	10/139	Do not List (3)
3259O	Faka Union Canal	6/81	Do not List (3)
3259P	Ferguson River	2/64	Do not List (3)
3259R	Runoff to Gulf	6/278	Do not List (3)
3259W	Lake Trafford	0/43	Do not List (1)
8064	Southwest Coast Gulf 4	0/188	Do not List (1)
8065	Southwest Coast Gulf 5	0/659	Do not List (1)
Ocklawaha River Basin			
2740D	Ocklawaha River Above Daisy	7/25	List (5)
2688	Hatchet Creek	7/25	List (5)
2747	Orange Creek	1/22 Since 1995	Do not List (4)
2740C	Ocklawaha River Above Lake Ocklawaha	2/51	Do not List (3)
St. Marks/Ochlockonee River Basin			
8025A	Mashes Island	4/298	Do not List (3)
8026	Coast Apalachee Gulf West	2/2378	Do not List (3)
791L	Lake Miccosukee	0/29	Do not List (1)
1297E	Ochlockonee River	0/25	Do not List (1)
424	Little River	8/31	List (5)
1248C	Ochlockonee Bay	0/60	Do not List (1)
998	Sopchoppy River	2/20	Do not List (3)
971	Chicken Branch	1/16 since 1999	Do not List (4)
793B	St. Marks River	8/150	Do not List (3)
1006	Wakulla River	0/63	Do not List (1)
Suwannee Basin			

Analysis of Waterbodies in Category 2 for Fecal Coliforms for Non-Shellfish Designated Areas			
WBID	Waterbody	Exceedances/ total samples	EPA Conclusion*
3324	Alapaha River	2/38	Do not List (3)
3310	Aucilla River	2./35	Do not List (3)
3314	Little Aucilla River	0/3	Do not List (2)
3310C	Aucilla River	0/2	Do not List (2)
3424A	Aucilla River	no data	Do not List (2)
3402	Econfina River	4/42	Do not List (3)
3473A	Fenholloway at Mouth	2/20 since 1996	Do not List (4)
3473C	Fenholloway above Pulp Mill	2/24	Do not List (3)
3422	Suwannee River (Lower)	1/84	Do not List (3)
3733	Direct Runoff to Gulf	1/96	Do not List (3)
3422A	Suwannee River (Lower)	17/707	Do not List (3)
3422D	Lower Suwannee Estuary	8/2509	Do not List (3)
3422B	Suwannee River (Lower)	9/305	Do not List (3)
3422V	Convict Spring	0/16	Do not List (1)
8032A	Dekle Beach	0/62	Do not List (1)
8032B	Keaton Beach	3/61	Do not List (3)
8032C	Cedar Beach	2/62	Do not List (3)
8037A	Cedar Key Park	1/82	Do not List (3)
3701	Direct Runoff to Gulf	2/365	Do not List (3)
3705	Butler (Lilly) Creek	0/68	Do not List (1)
3724	Direct Runoff to Gulf	2/290	Do not List (3)
3556A	Spring Warrior Creek	1/14	Do not List (3)
8035A	Shired Island Park	0/36	Do not List (1)
8032D	Dark Island	0/46	Do not List (1)
8035	Suwannee Gulf 7	4/5629	Do not List (3)
3506	New River	18/92	List (5)
3516	Alligator Lake	2/28	Do not List (3)
3519	Ichetucknee River	1/1	Do not List (2)
3593	Lake Crosby	0/0	Do not List (2)
3598	Sampson River	0/1	Do not List (2)
3805	Santa Fe River	2/2	Do not List (2)
3649	Cow Creek	2/23	Do not List (3)
3681	Turkey Creek	1/2	Do not List (2)
3504A	Olustee Creek	1/1	Do not List (2)
3506A	New River	1/13 since 1996	Do not List (4)
3598B	Lake Rowell	0/10	Do not List (1)
3598C	Alligator Creek	5/14	List (5)
3598D	Lake Sampson	0/15	Do not List (1)
3605A	Santa Fe River	1/77	Do not List (1)
3605C	Santa Fe River	1/234	Do not List (3)
3605D	Santa Fe River	0/0	Do not List (2)
3605E	Santa Fe River	0/2	Do not List (2)
3605F	Altho Drainage	0/0	Do not List (2)
3605G	Santa Fe Lake	0/15	Do not List (1)
3605Z	Trail Springs	0/8	Do not List (1)

Analysis of Waterbodies in Category 2 for Fecal Coliforms for Non-Shellfish Designated Areas			
WBID	Waterbody	Exceedances/ total samples	EPA Conclusion*
3635A	Hampton Lake	0/2	Do not List (2)
3573C	Steinhatchee River	0/0	Do not List (2)
3573A	Steinhatchee River	0/11	Do not List (1)
3573B	Steinhatchee River	2/12 (2/32 since 1989)	Do not List (3)
3341	Suwannee River (upper)	0/80	Do not List (1)
3351	Rocky Creek near Benton	0/18 since 1989	Do not List (1)
3364	Hunter Creek	0/0	Do not List (2)
3368	Swift Creek	2/35	Do not List (3)
3392	Roaring Creek	0/0	Do not List (2)
3448	Robinson Creek	0/15	Do not List (1)
3477	Falling Creek	9/58	List (5)
3341A	Suwannee River (Upper)	0/68	Do not List (1)
3341B	Suwannee River (Upper)	3/108	Do not List (3)
3341Y	Suwannee Springs	0/0	Do not List (2)
1326	Sheephead Creek	14/148	Do not List (3)
1328	Direct Runoff to Gulf	5/75	Do not List (3)
1332	Direct Runoff to Gulf	2/155	Do not List (3)
3699	Waccasassa River	8/58	List (5)
3743	Direct Runoff to Gulf	0/85	Do not List (1)
8037	Waccasassa River Gulf 1	2/3506	Do not List (3)
8038	Waccasassa River Gulf 2	2/3305	Do not List (3)
3315	Withlacoochee River	6/97	Do not List (3)
3322	Lake Cherry	0/14	Do not List (1)
Tampa Bay Basin			
1474	Brooker Creek	9/45	List (5)
1486A	Lake Tarpon	0/191	Do not List (1)
1507A	Rocky Creek	3/48	Do not List (3)
1513	Double Branch	23/85	List (5)
1516	Sweetwater Creek - Upper	7/88	Do not List (3)
1529	Cow Branch	14/35	List (5)
1536B	Sixmile Creek	3/84	Do not List (3)
1536C	Tampa Bypass Canal	2/82	Do not List (3)
1536E	Palm River	5/120	Do not List (3)
1558A	Tampa Bay Lower	41/3254	Do not List (3)
1558AB	Bayfront Park North	0/61	Do not List (1)
1558AC	Bayfront Park South	0/61	Do not List (1)
1558B	Tampa Bay Mid	13/779	Do not List (3)
1558C	Tampa Bay Upper	0/67	Do not List (1)
1558CB	Simmons Park Beach	4/63	Do not List (3)
1558CC	Bahia Beach	1/61	Do not List (3)
1558D	Hillsborough Bay Lower	0/115	Do not List (1)
1558E	Hillsborough Bay Upper	0/214	Do not List (1)

Analysis of Waterbodies in Category 2 for Fecal Coliforms for Non-Shellfish Designated Areas			
WBID	Waterbody	Exceedances/ total samples	EPA Conclusion*
1558EB	Davis Island Beach	0/61	Do not List (1)
1558F	Old Tampa Bay Lower	0/32	Do not List (1)
1558FB	Picnic Island South	2/61	Do not List (3)
1584B	McKay Bay	0/118	Do not List (1)
1604	Allen Creek	7/37	List (5)
1661A	Riviera Bay	2/37	Do not List (3)
1666A	Bullfrog Creek	27/83	List (5)
1709	Big Bayou Basin W	1/22	Do not List (3)
1709BB	North shore Beach	0/0	Do not List (2)
1709F	Frenchman's Creek Basin U	4/32	List (5)
1778	Cockroach Bay	2/53	Do not List (3)
1797B	Bishops Harbor	20/872	Do not List (3)
1558FC	Picnic Island North	2/62	Do not List (3)
1558G	Old Tampa Bay	0/32	Do not List (1)
1558GB	Gandy Boulevard	2/63	Do not List (3)
1558H	Old Tampa Bay	0/172	Do not List (1)
1558HB	Ben T. Davis North	4/126	Do not List (3)
1558HC	Ben T. Davis South	2/97	Do not List (3)
1558HD	Cypress Point Park North	0/43	Do not List (1)
1558HE	Cypress Point Park South	4/45	Do not List (3)
1558I	Old Tampa Bay	0/137	Do not List (1)
1583	Channel G	23/96	List (5)
1574A	Alligator Lake	0/26	Do not List (1)

* Basis for Decision included in parentheses: 1 - No exceedances in entire data set for past 7.5 years. 2 - Insufficient data for assessment. Cannot draw water quality conclusions based on limited data collected intermittently over past 7.5 years. 3 - Insufficient exceedances given the number of samples representing water quality for the waterbody based on a site specific review (see detailed discussion in text). 4 - Insufficient recent exceedances indicating current conditions of waterbody may not exceed water quality standards. 5 - Sufficient recent exceedances indicate current conditions of waterbody do not meet water quality standards. 6. Given the nature of the waterbody, water quality probably represents natural conditions.

Appendix F

Analysis of Waterbodies in Category 3c (and not on 1998 303(d) list) indicated by Naturally Variable Parameters				
Basin	WBID	Waterbody	IWR Parameter	EPA Conclusion*
Everglades - West Coast	3258D	Estero River	DO	List(5) Verified/Pollutant Unknown
	3258G	Tenmile Canal	DO	List(5) Verified/Pollutant Unknown
	3261C	Barron River Canal (north)	DO	List(5) Verified/Pollutant Unknown
	3259F	Golden Gate Canal	DO	List (5) 5/9 Exceedances
	3259G	Naples Bay	DO	Do not List(3) 4/18 Exceedances
	3259H	Henderson Creek Canal	DO	List(5) Verified/Pollutant Unknown
	3259W	Lake Trafford	Turbidity	Do not List 73/340 (Background Unknown)
	3259X	Drainage to Corkscrew	DO	Do not List(3) 2/10 Exceedances
Lake Okeechobee	3199A	Turkey Slough	DO	List(5) Verified/Pollutant Unknown
	3205C	Popash Slough	DO	List(5) 9/10 Exceedances
	3212B	Lake Okeechobee	Turbidity	Do not List 37/137 (Background Unknown)
	3212D	Lake Okeechobee	Turbidity	Do not List 149/824 (Background Unknown)
	3212E	Lake Okeechobee	Turbidity	Do not List 236/491 (Background Unknown)
	3212F	Lake Okeechobee	Turbidity	Do not List 169/635 (Background Unknown)
	3212G	Lake Okeechobee	Turbidity	Do not List 67/93 (Background Unknown)
	3212H	Lake Okeechobee	Turbidity	Do not List 55/447 (Background Unknown)
	3203C	L-63 Canal	DO	List(5) 8/12 Exceedances
Ocklawaha	2873C	Johns Lake	Turbidity	Do not List 6/36 (Background Unknown)
	2835D	Lake Apopka	Turbidity	Do not List 87/323 (Background Unknown)
	2835C	Gourd Neck Spring	DO	Do not List(7)
	2814A	Lake Griffin	Turbidity	Do not List 78/238 (Background Unknown)
	1362	Bugg Spring Run	DO	Do not List(2) 4/8
	2832	Helena Run	DO	List(5) 22/68 Exceedances
	2832A	Lake Denham	Turbidity	Do not List 11/20 (Background Unknown)
	2772	Silver River	DO	List(5) Verified/Pollutant Unknown
	2772A	Silver Springs	DO	Do not List(7)
	2705	Newnans Lake Outlet	Turbidity	Do not List 3/12 (Background Unknown)
	2705A	Prairie Creek	Turbidity	Do not List 8/26 (Background Unknown)
	1406	Big Creek Reach	DO	List(5) Verified/Pollutant Unknown
	2883	Little Creek	DO	List(5) 14/19 Exceedances
	2884	Bear Lake Outlet	DO	Do not List(2) No Data
	2839C	Lake Wilson	DO	List(5) Verified/Pollutant Unknown
	2839D	Lake Cherry	DO	Do not List(3) 5/80 Exceedances
	2839Y	Lake Susan	DO	List(5) 7/18 Exceedances
	2708	Sweetwater Creek	DO	Do not List(2) No Data
	2730	Deep Creek Rodman Reservoir	DO	List(5) Verified/Pollutant Unknown
	2740B	Lake Ocklawaha	DO	Do not List(2) 1/1
St. Marks - Ochlockonee	756B	Lake Piney Z	Conductivity	Do not List(1)
	756C	Lower Lake Lafayette	Conductivity	Do not List(1)
	863	Mall Drainage Ditch	Turbidity	Do not List(2) 3/3
	807A	Munson (Ames Sink)	DO	Do not List(2) No Data
	878B	Silver Lake	Turbidity	Do not List(2) No Data
	473	Unnamed Branch	DO	Do not List(2) No Data

Analysis of Waterbodies in Category 3c (and not on 1998 303(d) list) indicated by Naturally Variable Parameters				
Basin	WBID	Waterbody	IWR Parameter	EPA Conclusion*
	793B	St. Marks River	DO	List(5) Verified/Pollutant Unknown
	793Y	St. Marks Spring	DO	Do not List(2) 1/1
	1006Y	Sally Ward Spring	DO	Do not List(2) 3/3
	1028	McBride Slough	DO	List(5) 7/7 Exceedances
	442	Lake Iamonia Outlet	DO	List (5) Verified/Pollutant Unknown
	791L	Lake Miccosukee Outlet	DO	List (5) Verified/Pollutant Unknown
	995	Lost Creek	DO	List (5) Verified/Pollutant Unknown
	971	Chicken Branch	DO	List (5) Verified/Pollutant Unknown
	808	Copeland Sink Drain	DO	List (5) Verified/Pollutant Unknown
Suwannee River	3310	Aucilla River	DO	List(5) Verified/Pollutant Unknown
	3314	Little Aucilla River	DO	Do not List(2) 3/3
	3430	Anderson Bay Drain	DO	List(5) Verified/Pollutant Unknown
	3310C	Aucilla River	DO	Do not List(2) 3/3
	3424A	Aucilla River	DO	Do not List(2) No Data
	3673	Rock Bluff Spring	DO	Do not List(7)
	3422K	Guaranto Spring	DO	Do not List(7)
	3422M	Turtle Spring	DO	Do not List(7)
	3483	Peacock Slough	DO	List(5) 16/16 Exceedances
	3568	Owens Spring	DO	Do not List(2) 1/1
	3422J	Branford Spring	DO	Do not List(7)
	3422L	Ruth Spring	DO	Do not List(7)
	3422Q	Ellaville Spring	DO	Do not List(2) 4/4
	3422W	Running Spring	DO	Do not List(2) 3/3
	3422Y	Charles Spring	DO	Do not List(7)
	3556A	Spring Warrior Creek	DO	Do not List(7)
	3517	Price Creek	DO	List(5) Verified/Pollutant Unknown
	3644	Mill Creek Sink	DO	Do not List(2) 2/5
	3644	Mill Creek Sink	Turbidity	Do not List(2) No Data
	3649	Cow Creek	DO	Do not List(2) 0/23
	3682	Blue Creek	DO	Do not List(2) 3/15
	3504A	Olustee Creek	DO	List(5) Verified/Pollutant Unknown
	3506A	New River	DO	Do not List(2) 8/25
	3531A	Rose Creek Sink	DO	Do not List(2) 4/4
	3598B	Lake Rowell	DO	List(5) Verified/Pollutant Unknown
	3598C	Alligator Creek	DO	Do not List(3) 1/17 Exceedances
	3605T	Columbia Springs	DO	Do not List(7)
	3605Z	Trail Springs	DO	Do not List(7)
	3573	Steinhatchee River	DO	List(5) Verified/Pollutant Unknown
	3573C	Steinhatchee River	DO	List(5) Verified/Pollutant Unknown
	3577	California (Rocky) Creek	DO	List(5) Verified/Pollutant Unknown
	3603	Bevins (Boggy) Creek	BOD	Do not List(2) No Data
	3674	Sand Hill Creek	DO	Do not List(2) 1/1
	3573Z	Steinhatchee Spring	DO	Do not List(7)
	3351	Rocky Creek Near Benton	DO	Do Not List(6) DO concentrations naturally below 5 mg/L.
	3423	Jerry Branch	DO	Do not List(2) No Data
	3448	Robinson Creek	DO	Do Not List(6) DO concentrations naturally below 5 mg/L.
	3341Z	White Springs (Hamilton)	DO	Do not List(2) 4/4
	1325	Tenmile Creek	DO	Do not List(2) 1/3

Analysis of Waterbodies in Category 3c (and not on 1998 303(d) list) indicated by Naturally Variable Parameters				
Basin	WBID	Waterbody	IWR Parameter	EPA Conclusion*
Tampa Bay	3729	Black Point Swamp	Conductivity	Do not List - May be Estuary. No Standard.
	3315Z	Blue Springs	DO	Do not List(2) 4/4
	3649	Cow Creek	DO	List (5) Verified/Pollutant Unknown
	3605E	Santa Fe River	DO	List (5) Verified/Pollutant Unknown
	1486	Lake Tarpon Outlet	Alkalinity	Do not List(2) No Data
	1529	Cow Branch	DO	List(5) Verified/Pollutant Unknown
	1536B	Sixmile Creek	BOD	Do not List(3) Mean = 1.85
	1541A	Lake Tarpon Canal	Conductance	Do not List - May be Estuary. No Standard.
	1541C	Lake Tarpon South Cove	DO	List(5) Verified/Pollutant Unknown
	1558HB	Ben T. Davis North	DO	List(5) Verified/Pollutant Unknown
	1603C	Beckett Lake - Open Water	DO	List(5) 7/19 Exceedances
	1627B	Long Branch Tidal	DO	List(2) 57/88
	1709E	Pinellas Point - Basin V	DO	List(5) Verified/Pollutant Unknown

* Basis for Decision included in parentheses: 1 - No exceedances in entire data set for past 7.5 years. 2 - Insufficient data for assessment. Cannot draw water quality conclusions based on limited data collected intermittently over past 7.5 years. 3 - Insufficient exceedances given the number of samples representing water quality for the waterbody based on a site specific review (see detailed discussion in text). 4 - Insufficient recent exceedances indicating current conditions of waterbody may not exceed water quality standards. 5 - Sufficient recent exceedances indicate current conditions of waterbody do not meet water quality standards. 6. Given the nature of the waterbody, water quality probably represents natural conditions. Ratios express the number of samples results with analytical results above the criteria in relation to the total number of samples (number of exceedances/ number of samples).

Appendix G

Analysis of Florida Waters in Category 2 for Toxic Criteria (based on Oct. 1 Integrated Report)				
Basin	Waterbody	WBID	Impairment	EPA Conclusion*
Everglades - West Coast	Hendry Creek	3258B	Lead	Do not List(1)
			Zinc	Do not List(1)
	Estero Bay Drainage (Mullock Creek)	3258C	Arsenic	Do not List(1)
			Copper	Do not List(3) 7/387 Exceedances
			Lead	Do not List(3) 3/387 Exceedances
			Zinc	Do not List(3) 2/387 Exceedances
	Estero River	3258D	Lead	Do not List(3) 1/213 Exceedances
			Zinc	Do not List(1)
	Imperial River	3258E	Lead	Do not List(3) 1/158 Exceedances
			Zinc	Do not List(1)
	Tenmile Canal	3258G	Lead	Do not List(3) 1/547 Exceedances
			Arsenic	Do not List(1)
			Zinc	Do not List(1)
	Spring Creek	3258H	Zinc	
	Tamiami Canal	3261B	Copper	Do not List(1)
			Lead	Do not List(1)
			Unionized ammonia	Do not List(1)
			Zinc	Do not List(1)
	Barron River Canal (north)	3261C	Fluoride	Do not List(1)
	L-28 Interceptor	3266	Unionized ammonia	Do not List(1)
Lake Okeechobee	L-28 Gap	3269	Unionized ammonia	Do not List(1)
	Lake Trafford	3259W	Fluoride	Do not List(1)
	Southwest Coast Gulf 5	8065	Arsenic	Do not List(1)
	Lake Okeechobee	3212A	Arsenic	Do not List(1)
			Copper	Do not List(1)
			Mercury (fish tissue)	
			Lead	Do not List(3) 1/93 Exceedances
			Unionized ammonia	Do not List(1)
			Zinc	Do not List(1)
	Lake Okeechobee	3212B	Unionized ammonia	Do not List(1)
	Lake Okeechobee	3212C	Arsenic	Do not List(1)
			Copper	Do not List(1)
			Lead	Do not List(1)
			Unionized ammonia	Do not List(1)
			Zinc	Do not List(1)
	Lake Okeechobee	3212D	Unionized ammonia	Do not List(1)
			Arsenic	Do not List(1)
			Copper	Do not List(1)
			Lead	Do not List(3) 1/116 Exceedances
			Zinc	Do not List(1)
	Lake Okeechobee	3212E	Arsenic	Do not List(1)
			Copper	Do not List(1)
			Lead	Do not List(3) 2/92 Exceedances

Analysis of Florida Waters in Category 2 for Toxic Criteria (based on Oct. 1 Integrated Report)				
Basin	Waterbody	WBID	Impairment	EPA Conclusion*
Ocklawaha River	Lake Okeechobee	3212F	Unionized ammonia	Do not List(1)
			Zinc	Do not List(1)
			Arsenic	Do not List(1)
			Copper	Do not List(1)
			Lead	Do not List(1)
	Lake Okeechobee	3212G	Unionized ammonia	Do not List(1)
			Zinc	Do not List(1)
			Unionized ammonia	Do not List(1)
	Lake Okeechobee	3212H	Arsenic	Do not List(1)
			Copper	Do not List(3) 1/96 Exceedances
			Lead	Do not List(1)
	Lake Okeechobee	3212I	Unionized ammonia	Do not List(1)
			Zinc	Do not List(1)
			Copper	Do not List(1)
			Lead	Do not List(1)
			Arsenic	Do not List(1)
	Nubbin Slough	3203A	Unionized ammonia	Do not List(3) 1/126 Exceedances
			Zinc	Do not List(1)
			Unionized ammonia	Do not List(1)
	Henry Creek	3213B	Unionized ammonia	Do not List(1)
			Unionized ammonia	Do not List(1)
	S-135	3213C	Unionized ammonia	Do not List(1)
	Irrigated Farm	2805	?	
	Lake Yale Canal	2807	Unionized ammonia	Do not List(3) 1/7 Exceedances
	Lake Dora	2831A	Lead	Do not List(1)
	Helena Run	2832	Unionized ammonia	Do not List(2) No Data
	Lake Beauclair	2834C	Unionized ammonia	Do not List(4) '97(0/10) '96(0/12) '95(3/26)
	Lake Apopka Outlet	2835A	Unionized ammonia	Do not List(4) '97(0/9) '96(0/12) '95(3/28)
	Lake Harris	2838A	Unionized ammonia	Do not List(4) '98(0/13) '97(0/11) '96(0/12)
				'95(6/24)
	Sweetwater Branch	2711	Unionized ammonia	Do not List(1)
	Lochloosa Lake	2738A	Unionized ammonia	Do not List(1)
	Orange Creek	2747	Iron	Do not List(4) '01(0/7) '00(0/6) '99(0/2)
				'98(1/6) '97(0/6) '96(2/6) '95(2/5)
	Orange Lake	2749A	Unionized ammonia	Do not List(1)
	Lake Minneola	2839A	Unionized ammonia	Do not List(1)
	Lake Hiawatha	2839B	Unionized ammonia	Do not List(1)
	Lake Lucy	2839E	Unionized ammonia	Do not List(1)
	Lake Emma	2839F	Unionized ammonia	Do not List(1)
	Lake Minnehaha	2839H	Unionized ammonia	Do not List(1)
St. Marks - Ochlockonee	Ochlockonee River	1297E	Unionized ammonia	Do not List(1)
	Ochlockonee River	1297F	Unionized ammonia	Do not List(1)
	Little River	424	Unionized ammonia	Do not List(1)
	Sopchoppy River	998	Unionized ammonia	Do not List(1)
	Ochlockonee River	1297A	Unionized ammonia	Do not List(1)
Suwannee River	St. Marks River	793B	Fluoride	Do not List(1)
	Telogia Creek	1300	Unionized ammonia	Do not List(1)
	Alapaha River	3324	Fluoride	Do not List(1)

Analysis of Florida Waters in Category 2 for Toxic Criteria (based on Oct. 1 Integrated Report)				
Basin	Waterbody	WBID	Impairment	EPA Conclusion*
			Unionized ammonia	Do not List(1)
	Wacissa River	3424	Fluoride	Do not List(1)
	Anderson Bay Drain	3430	Fluoride	Do not List(1)
	New River	3506	Unionized ammonia	Do not List(1)
	Nuttall Rise	3310Z	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Econfina River	3402	Unionized ammonia	Do not List(1)
	Fenholloway at Mouth	3473A	Unionized ammonia	Do not List(1)
	Fenholloway above Pulp Mill	3473C	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Suwannee River (Lower)	3422	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Rock Bluff Spring	3673	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Suwannee River (Lower)	3422A	Iron	Do not List(2) No Data
			Unionized ammonia	Do not List(1)
	Fanning Springs	3422S	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Peacock Slough	3483	Unionized ammonia	Do not List(1)
	Owens Spring	3568	Unionized ammonia	Do not List(1)
	Suwannee River (Lower)	3422B	Copper	Do not List(1)
			Nickel	Do not List(1)
			Unionized ammonia	Do not List(1)
			Fluoride	Do not List(1)
	Ruth Spring	3422L	Fluoride	Do not List(1)
	Troy Spring	3422T	Unionized ammonia	Do not List(1)
			Fluoride	Do not List(1)
	Royal Spring	3422U	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Convict Spring	3422V	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Running Spring	3422W	Unionized ammonia	Do not List(1)
	Telford Spring	3422X	Unionized ammonia	Do not List(1)
			Fluoride	Do not List(1)
	Charles Spring	3422Y	Unionized ammonia	Do not List(1)
			Fluoride	Do not List(1)
	Falmouth Spring	3422Z	Unionized ammonia	Do not List(1)
			Fluoride	Do not List(1)
	Little River Springs	3496Z	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	New River	3506	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Alligator Lake	3516	Unionized ammonia	Do not List(1)
			Fluoride	Do not List(1)
	Price Creek	3517	Fluoride	Do not List(1)
	Ichetucknee River	3519	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Cannon Creek	3520	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)

Analysis of Florida Waters in Category 2 for Toxic Criteria (based on Oct. 1 Integrated Report)				
Basin	Waterbody	WBID	Impairment	EPA Conclusion*
	Lake Crosby	3593	Unionized ammonia	Do not List(1)
	Sampson River	3598	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Santa Fe River	3605	Unionized ammonia	Do not List(1)
	Pareners Branch	3626	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Cow Creek	3649	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Turkey Creek	3681	Unionized ammonia	Do not List(2) 0/2
	Blue Creek	3682	Unionized ammonia	Do not List(1)
	Olustee Creek	3504A	Unionized ammonia	Do not List(1)
	New River	3506A	Unionized ammonia	Do not List(1)
	Ichetucknee Head Spring	3519Z	Unionized ammonia	Do not List(1)
	Lake Rowell	3598B	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(3) 1/70 Exceedances
			Iron	Do not List(1)
	Alligator Creek	3598C	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Lake Sampson	3598D	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Santa Fe River	3605A	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Santa Fe River	3605C	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Santa Fe River	3605D	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Santa Fe River	3605E	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Altho Drainage	3605F	Unionized ammonia	Do not List(2) No Data
	Santa Fe Lake	3605G	Unionized ammonia	Do not List(1)
	Blue Spring	3605X	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Trail Springs	3605Z	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Hampton Lake	3635A	Unionized ammonia	Do not List(1)
	Hornsby Spring	3653Z	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Steinhatchee River	3573C	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
			Copper	Do not List(2) No Data
			Iron	Do not List(2) No Data
			Nickel	Do not List(2) No Data
			Zinc	Do not List(2) No Data
	Steinhatchee River	3573A	Fluoride	Do not List(1)
			Iron	Do not List(2) No Data
			Unionized ammonia	Do not List(1)
	Steinhatchee River	3573B	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Steinhatchee Spring	3573Z	Fluoride	Do not List(1)

Analysis of Florida Waters in Category 2 for Toxic Criteria (based on Oct. 1 Integrated Report)				
Basin	Waterbody	WBID	Impairment	EPA Conclusion*
	Suwannee River (Upper)	3341	Unionized ammonia	Do not List(1)
			Fluoride	Do not List(1)
	Rocky Creek near Benton	3351	Unionized ammonia	Do not List(1)
			Fluoride	Do not List(1)
	Hunter Creek	3364	Unionized ammonia	Do not List(3) 1/38 Exceedances
			Fluoride	Do not List(1)
	Swift Creek	3375	Unionized ammonia	Do not List(1)
			Unionized ammonia	Do not List(3) 2/39 Exceedances
			Fluoride	Do not List(1)
	Deep Creek	3388	Unionized ammonia	Do not List(1)
			Fluoride	Do not List(1)
	Roaring Creek	3392	Unionized ammonia	Do not List(1)
			Fluoride	Do not List(1)
	Camp Branch	3401	Unionized ammonia	Do not List(1)
	Robinson Creek	3448	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Falling Creek	3477	Unionized ammonia	Do not List(1)
			Fluoride	Do not List(1)
	Suwannee River (Upper)	3341A	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Suwannee River (Upper)	3341B	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Suwannee Springs	3341Y	Fluoride	Do not List(2) 0/7
			Unionized ammonia	Do not List(2) No Data
	Waccasassa River	3699	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
	Black Point Swamp	3729	Unionized ammonia	Do not List(3) 1/12 Exceedances
	Withlacoochee River	3315	Fluoride	Do not List(1)
			Unionized ammonia	Do not List(1)
Tampa Bay	Brooker Creek	1474	Unionized ammonia	Do not List(1)
	Lake Tarpon	1486A	Unionized ammonia	Do not List(1)
	Sweetwater Creek - Upper	1516	Unionized ammonia	Do not List(1)

Analysis of Florida Waters in Category 2 for Toxic Criteria (based on Oct. 1 Integrated Report)				
Basin	Waterbody	WBID	Impairment	EPA Conclusion*
	Cow Branch	1529	Unionized ammonia	Do not List: 9/49 Exceedances '98(0/15) '97(4/18) '96(4/17) Except for the samples that indicated exceedances, levels measured were well below the criteria by one order of magnitude at least. Additionally, the last violation occurred in September 1997 and there were 14 months of subsequent sampling measuring levels well below the criteria. The Agency recommends that FDEP target this waterbody for NH3 sampling during the next monitoring cycle.
	Sixmile Creek	1536B	Unionized ammonia	Do not List(1)
	Tampa Bypass Canal	1536C	Unionized ammonia	Do not List(1)
	Lake Tarpon Canal	1541A	Unionized ammonia	Do not List(3) 2/36 Exceedances
	Delaney Creek	1605	Unionized ammonia	Do not List(3) 1/48 Exceedances
	Long Branch	1627	Unionized ammonia	Do not List(1)
	Bullfrog Creek	1666	Unionized ammonia	Do not List(1)

* Basis for Decision included in parentheses: 1 - No exceedances in entire data set for past 7.5 years. 2 - Insufficient data for assessment. Cannot draw water quality conclusions based on limited data collected intermittently over past 7.5 years. 3 - Insufficient exceedances given the number of samples representing water quality for the waterbody based on a site specific review (see detailed discussion in text). 4 - Insufficient recent exceedances indicating current conditions of waterbody may not exceed water quality standards. 5 - Sufficient recent exceedances indicate current conditions of waterbody do not meet water quality standards. 6. Given the nature of the waterbody, water quality probably represents natural conditions. Ratios express the number of samples results with analytical results above the criteria in relation to the total number of samples (number of exceedances/ number of samples).

Appendix H

Analysis of Waterbodies in Category 3c for Toxic Criteria (and not on 1998 303(d) list)				
Basin	WBID	Waterbody	IWR Parameter	EPA Conclusion*
Everglades - West Coast O c k l a w a h a River	3261A	Barron River Canal (south)	Cadmium	Do not List(1)
	2873C	Johns Lake	Copper	Do not List(2) 1/4
	2873C	Johns Lake	Lead	Do not List (2) No Data
	2875	Black Lake Outlet	Un-ionized NH3	List (5) 5/11 Exceedances
	2873B	Lake Avalon	Copper	Do not List(2) 0/2
	2873B	Lake Avalon	Lead	Do not List(2) No Data
	2807A	Lake Yale	Selenium	Do not List(1)
	2783G	Lake Mary	Lead	Do not List(2) No Data
	2783J	Clearwater Lake	Copper	Do not List(2) No Data
	2783J	Clearwater Lake	Lead	Do not List(2) No Data
	2831B	Lake Dora	Selenium	Do not List(1)
	2836B	Lake Ola	Lead	Do not List(2) 1/1
	2817B	Lake Eustis	Silver	Do not List(2) 1/1
	2790A	Lake Weir	Copper	List: 2/21 total exceedances in past 7.5 years. Single exceedances occurred in 1996 and 1997. No exceedances in 1995 and 1998 (5 samples). No samples collected since 1998. Exceedances were elevated, exceeding EPA acute thresholds.
	2790A	Lake Weir	Lead	Do not List(3) 1/13 Exceedances
	2790A	Lake Weir	Silver	Do not List(2) ½
	2790A	Lake Weir	Zinc	Do not List(3) 1/9 Exceedances
	2688	Hatchet Creek	Lead	Do not List(4) 0/16 Last 3 Years
	2705	Newnans Lake Outlet	Un-ionized NH3	Do not List(2) No Data
	2738A	Lochloosa Lake	Selenium	Do not List(1)
	2747	Orange Creek	Lead	Do not List(4) 0/14 Last 3 Years
	2747	Orange Creek	Silver	Do not List(2) 0/2
	2749A	Orange Lake	Silver	Do not List(2) 0/1
	2890A	Lake Lowery	Lead	Do not List(2) 2/4 in 1995
	2740E	Penner Ponds	Copper	Do not List(2) No Data
	2740E	Penner Ponds	Lead	Do not List(2) No Data
	2740E	Penner Ponds	Zinc	Do not List(2) No Data
	2775F	Lake Charles	Lead	Do not List(2) No Data
	1121	Moriah Creek	Dioxin	Do not List (2) - Sediment Data and no Water Quality Data - Given that no water quality data was provided for comparison with the Water Quality Standard, and that No Criteria exists in FL Water Quality Standards for sediment conditions, EPA lacks evidence for evaluation for purposes of 303(d) listing.
	793A	St. Marks River (South)	Dioxin	Do not List (2) - Sediment Data and no

Analysis of Waterbodies in Category 3c for Toxic Criteria (and not on 1998 303(d) list)				
Basin	WBID	Waterbody	IWR Parameter	EPA Conclusion*
	793B	St. Marks River	Dioxin	Water Quality Data Do not List (2) - Sediment Data and no
	1006	Wakulla River	Dioxin	Water Quality Data Do not List (2) - Sediment Data and no
	3644	Mill Creek Sink	Un-ionized NH3	Water Quality Data Do not List(1)
	3573B	Steinhatchee River	Iron	Do not List (7) 10/10 Exceedances - Likely Natural based on consistent analytical results.
	?	Borrow Pits	Lead	Do not List(1)

Analysis of Waterbodies in Category 3c for Toxic Criteria (and not on 1998 303(d) list)				
Basin	WBID	Waterbody	IWR Parameter	EPA Conclusion*
	1574	Alligator Creek	Lead	Do not List(2) (4/9 in 3 days worth of sampling in 1996) No more prior or recent data and no hardness data collected in 1996 for calculation of the water quality standard. Clean technique sampling and analytical procedures needed to evaluate against standard.

* Basis for Decision included in parentheses: 1 - No exceedances in entire data set for past 7.5 years. 2 - Insufficient data for assessment. Cannot draw water quality conclusions based on limited data collected intermittently over past 7.5 years. 3 - Insufficient exceedances given the number of samples representing water quality for the waterbody based on a site specific review (see detailed discussion in text). 4 - Insufficient recent exceedances indicating current conditions of waterbody may not exceed water quality standards. 5 - Sufficient recent exceedances indicate current conditions of waterbody do not meet water quality standards. 6. Given the nature of the waterbody, water quality probably represents natural conditions. Ratios express the number of samples results with analytical results above the criteria in relation to the total number of samples (number of exceedances/ number of samples).

Appendix I

Water Quality Limited Segments FDEP is Adding to the 303(d) List				
Water Segment Name	Water Body Identification (WBID)	Pollutant	TMDL Development Priority	TMDL Development Year
Econfina-Fenholloway River Basin				
Fenholloway below Pulp	3473B	Conductivity	Medium	2007
Everglades-West Coast Basin				
Estero Bay Drainage (Mullock Creek)	3258C	DO	Medium	2007
Estero Bay Drainage (Mullock Creek)	3258C	Nutrients (Chla)	Medium	2007
Hendry Creek Marine	3258B1	Nutrients (Chla)	Medium	2007
Hendry Creek Marine	3258B1	DO	Medium	2007
Hendry Creek Marine	3258B1	Coliforms (fecal)	Medium	2007
Estero River Marine	3258D1	Nutrients (Chla)	Medium	2007
Estero River Marine	3258D1	Copper	Medium	2007
Estero River Marine	3258D1	DO	Medium	2007
Imperial River Marine	3258E1	Copper	Medium	2007
Spring Creek Marine	3258H1	Nutrients (Chla)	Medium	2007
Spring Creek Marine	3258H1	Copper	Medium	2007
Spring Creek Marine	3258H1	DO	Medium	2007
Cocohatchee River Canal	3259B	DO	Medium	2007
Cocohatchee River Canal	3259B	Iron	Medium	2007
Gordon River Canal	3259D	DO	Medium	2007
Henderson Creek Canal	3259E	DO	Medium	2007
Blackwater River	3259L	DO	Medium	2007
Southwest Coast Gulf 5	8065	Bacteria (shellfish)	Medium	2007
Gulf Coast				

Water Quality Limited Segments FDEP is Adding to the 303(d) List				
Water Segment Name	Water Body Identification (WBID)	Pollutant	TMDL Development Priority	TMDL Development Year
Florida Gulf Coast	8999	Mercury (fish tissue)	Low	2011
Ochlockonee River Basin				
Lake Jackson	582B	DO	Medium	2007
Lake Jackson	582B	Nutrients (TSI)	Medium	2007
Mashes Island	8025B	Beach Advisory (bacteria)	High	2007
Moore Lake	889	Mercury (fish tissue)	Low	2011
Tallavana Lake	540A	Nutrients (TSI)	Medium	2007
Telogia Creek	1300	Coliforms (fecal)	Medium	2007
Telogia Creek	1300	Coliforms (total)	Medium	2007
Ocklawaha River Basin				
Lake Apopka	2835D	Pesticides (fish tissue)	Medium	2007
Lake Yale Canal	2807	Nutrients (TSI)	Medium	2007
Lake Yale	2807A	Nutrients (TSI)	Medium	2007
Lake Lorraine	2829A	Nutrients (TSI)	Medium	2007
Lake Denham	2832A	Nutrients (TSI)	Medium	2007
Lake Weir Outlet	2790	Nutrients (TSI)	Medium	2007
Ocklawaha River above Daisy	2740D	Iron	Medium	2007
Lake Weir	2790A	Nutrients (TSI)	Medium	2007
Little Hatchet Creek	2695	DO	Medium	2007
Hogtown Creek	2698	DO	Medium	2007
Redwater Lake	2713B	Nutrients (TSI)	Medium	2007
Palatlakaha River	2839	Nutrients (Chla)	Medium	2007
Lake Bryant	2782C	Nutrients (TSI)	Medium	2007

Water Quality Limited Segments FDEP is Adding to the 303(d) List				
Water Segment Name	Water Body Identification (WBID)	Pollutant	TMDL Development Priority	TMDL Development Year
Dead River	2817C	Nutrients (Chla)	Medium	2007
Dora Canal (Extension Ditch)	2831A	DO	Low	2002
Bevens Creek (Tumbling Creek South)	2718C	Nutrients (Chla)	Medium	2007
Newnans Lake Outlet	2705	Nutrients (TSI)	Medium	2007
St. Marks River Basin				
Alford Arm	647	DO	Medium	2007
Apalachee Bay (west)	8026	Bacteria (shellfish)	Medium	2007
Lake Lafayette (upper)	756A	DO	High	2002
Lake Lafayette (lower)	756C	DO	Medium	2007
Lake Lafayette Drain	756	DO	Medium	2007
Lake Piney Z	756B	DO	Medium	2007
Lake Miccosukee	791L	Coliforms (total)	Medium	2007
Lake Munson	807C	DO	Medium	2007
Lake Weeks	971B	DO	Medium	2007
Shell Point	8026B	Beach Advisory (bacteria)	High	2007
Wakulla River	1006	Biology	Medium	2007
Santa Fe River Basin				
Alligator Lake	3516A	DO	Medium	2007
Alligator Lake Outlet	3516	DO	Medium	2007
Alligator Lake Outlet	3516	Nutrients (TSI)	Medium	2007
Cannon Creek	3520	Coliforms (fecal)	Medium	2007
Pareners Branch	3626	Coliforms (fecal)	Medium	2007
Suwannee River Basin				

Water Quality Limited Segments FDEP is Adding to the 303(d) List				
Water Segment Name	Water Body Identification (WBID)	Pollutant	TMDL Development Priority	TMDL Development Year
Suwannee River (Lower)	3422A	Mercury (fish tissue)	Medium	2011
Lower Suwannee Estuary	3422D	Coliforms (shellfish)	Medium	2008
Lower Suwannee Estuary	3422D	Mercury (fish tissue)	Low	2011
Dekle Beach	8032A	Coliforms (beach advisory)	Medium	2007
Keaton Beach	8032B	Coliforms (beach advisory)	Medium	2007
Cedar Beach	8032C	Coliforms (beach advisory)	Medium	2007
Suwannee Gulf 1	8029	Mercury (fish tissue)	Low	2011
Suwannee Gulf 2	8030	Mercury (fish tissue)	Low	2011
Suwannee Gulf 3	8031	Mercury (fish tissue)	Low	2011
Suwannee Gulf 4	8032	Mercury (fish tissue)	Low	2011
Suwannee Gulf 5	8033	Mercury (fish tissue)	Low	2011
Suwannee Gulf 6	8034	Mercury (fish tissue)	Low	2011
Suwannee Gulf 7	8035	Mercury (fish tissue)	Low	2011
Suwannee Gulf 7	8035	Coliforms (shellfish)	Medium	2008
Tampa Bay Basin				
Lake Juanita	1473W	Nutrients (Historic TSI)	Medium	2008
Mound Lake	1473X	Nutrients (Historic TSI)	Medium	2008
Calm Lake	1473Y	Nutrients (Historic TSI)	Medium	2008
Crescent	1474V	Nutrients (TSI)	Medium	2008
Dead Lady Lake	1474D	Nutrients (TSI)	Medium	2008
Lake Reinheimer - Open	1478H	Nutrients (TSI)	Medium	2008

Water Quality Limited Segments FDEP is Adding to the 303(d) List				
Water Segment Name	Water Body Identification (WBID)	Pollutant	TMDL Development Priority	TMDL Development Year
Lake Tarpon	1486A	DO	Medium	2008
Lake Tarpon	1486A	Nutrients (TSI)	Medium	2008
Buck Lake	1493E	Nutrients (TSI)	Medium	2008
Brant Lake	1494B	Nutrients (TSI)	Medium	2008
Sunset Lake	1496A	Nutrients (TSI)	Medium	2008
Lake Estes	1502A	Nutrients (TSI)	Medium	2008
Chapman Lake	1502C	Nutrients (TSI)	Medium	2008
Sweetwater Creek - Upper	1516	Nutrients (Chla & Historic Chla)	Medium	2008
Lake Carroll	1516A	Nutrients (TSI)	Medium	2008
Lake Madelene	1516B	Nutrients (TSI)	Medium	2008
Lake Ellen - Open Water	1516E	Nutrients (TSI)	Medium	2008
Tampa Bay Lower	1558A	Mercury (fish tissue)	Low	2011
Tampa Bay Lower	1558A	Coliforms (shellfish)	Medium	2008
Tampa Bay Mid	1558B	Mercury (fish tissue)	Low	2011
Tampa Bay Mid	1558B	Coliforms (shellfish)	Medium	2008
Old Tampa Bay Lower	1558F	Coliforms (shellfish)	Medium	2008
Old Tampa Bay Lower	1558G	Coliforms (shellfish)	Medium	2008
Old Tampa Bay	1558H	Coliforms (shellfish)	Medium	2008
Old Tampa Bay	1558I	Coliforms (shellfish)	Medium	2008
Sweetwater Creek Tidal - Lower	1570A	Coliforms (fecal & total)	High	2003
Sweetwater Creek Tidal - Lower	1570A	DO	High	2003
Sweetwater Creek Tidal - Lower	1570A	Nutrients (Chla & Historic Chla)	High	2003

Water Quality Limited Segments FDEP is Adding to the 303(d) List				
Water Segment Name	Water Body Identification (WBID)	Pollutant	TMDL Development Priority	TMDL Development Year
Beckett Lake - Open Water	1603C	Nutrients (TSI)	Medium	2008
Delaney Creek Tidal	1605D	Coliforms (fecal & total)	Medium	2008
Delaney Creek Tidal	1605D	DO	Medium	2008
Delaney Creek Tidal	1605D	Nutrients (Chla)	Medium	2008
Delaney Creek Tidal	1605D	Lead	Medium	2008
Little Bayou - Basin Q	1709D	Coliforms (fecal)	Medium	2008
Little Bayou - Basin Q	1709D	DO	Medium	2008
Little Bayou - Basin Q	1709D	Nutrients (Chla)	Medium	2008
Cockroach Bay	1778	Coliforms (shellfish)	Medium	2008
Bishops Harbor	1797B	Coliforms (shellfish)	Medium	2008
Tampa Bypass Canal	1536C	Coliforms (total)	Medium	2008
Bullfrog Creek	1666	Coliforms (fecal & total)	Medium	2008
Waccasassa River Basin				
Black Point Swamp	3729	Nutrients (Chla)	Medium	2007
Waccasassa River	3699	Coliforms (total)	Medium	2007
Waccasassa River Gulf 1	8037	Mercury (fish tissue)	Low	2011
Waccasassa River Gulf 1	8037	Coliforms (shellfish)	Medium	2008
Waccasassa River Gulf 2	8038	Mercury (fish tissue)	Low	2011
Waccasassa River Gulf 2	8038	Coliforms (shellfish)	Medium	2008

Appendix J

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Econfina-Fenholloway River Basin				
Econfina River	3402	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Original Listing methodology for coliforms did not compare samples to water quality standard (used water quality index as described in 1996 305(b) report) which resulted in many waterbodies whose samples did not exceed any water quality criteria to get identified as a WQLS and independent data review did not identify segment as water quality limited (4 exceedances of 400 CFU criteria out of 42 samples over past 7.5 years). (Flaw confirmed and Independent Data Review.)
Econfina River	3402	DO	Natural conditions	Delisting Accepted: Independent review conducted by EPA which supported natural conditions are below 5 mg/L.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Fenholloway at Mouth	3473A	Coliforms (fecal)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (3 out of 36 samples exceed 400 CFU criteria over past 7.5 years. 3 Samples excluded because holding times were exceeded.)
Fenholloway at Mouth	3473A	Dioxin (fish tissue)	Meets standards	Delisting not Accepted: Insufficient data to conclude fish tissue dioxin concentrations are below human health consumption levels. Insufficient evidence of source control.
Fenholloway at Mouth	3473A	Un-ionized Ammonia	Flaw in original listing. Data was applied to criteria for fresh water and this waterbody is Class III marine.	Delisting Acceptable: Original analysis is not appropriate for identifying water quality limited segments because there is no water quality criteria adopted and approved for this parameter in marine waters.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Fenholloway below Pulp Mill	3473B	TSS	No criteria for TSS. Flaw in original listing methodology. Analyzed for turbidity.	Delisting Accepted: Original Listing methodology for TSS did not compare samples to water quality standard (used water quality index as described in 1998 305(b) report) which resulted in many waterbodies whose samples did not exceed any water quality criteria to get identified as a WQLS. Turbidity can be an indication of excess suspended solids and concentrations are low in samples collected. (Flaw accepted and Turbidity surrogate acceptable.)
Fenholloway above Pulp Mill	3473C	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: The new methodology is an acceptable application of the narrative criteria and the original listing methodology for nutrients using the water quality index described in the 1996 FDEP 305(b) report was not site specific enough to measure actual waterbody imbalance of flora or fauna. (New methodology acceptable and flaw confirmed.)
Everglades-West Coast Basin				
Estero Bay Wetlands	3258A	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Gordon River	3259C	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Estero Bay Drainage (Mullock Creek)	3258C	N/A	Flaw in original listing: NPS Survey and no data.	Delisting Accepted: Waterbody listing changed to include pollutants and basis for listing changed.
Spring Creek	3258H	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Lake Trafford	3259W	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Random analysis of Category 2 waters for DO indicated that FDEP's verification process properly identified water quality limited segments and the original listing methodology for DO using the water quality index described in the 1996 FDEP 305(b) report was flawed because it did not compare sample data to water quality which resulted in many waterbodies whose samples did not exceed any water quality criteria to get identified as a WQLS. (New methodology acceptable and flaw confirmed.)

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Tamiami Canal	3261B	Copper	Application of New Methodology	Delisting Accepted: Independent data review did not identify segment as water quality limited (reviewed samples contained no exceedances of the criteria - 0/90 in past 7.5 years). (Independent Data Review.)
Lake Okeechobee Basin				
Lake Okeechobee	3212A	DO	Addressed by Total Phosphorus TMDL, 2001	Delisting Accepted: TMDL Established and Approved.
Lake Okeechobee	3212A	Chlorides	Application of New Methodology	Delisting Accepted: Independent Data Review - 5/548 in past 7.5 years.
Lake Okeechobee	3212A	Nutrients	Addressed by Total Phosphorus TMDL, 2001	Delisting Accepted: TMDL Established and Approved.
Lake Okeechobee	3212B	Nutrients	Addressed by Total Phosphorus TMDL, 2001	Delisting Accepted: TMDL Established and Approved.
Lake Okeechobee	3212C	DO	Addressed by Total Phosphorus TMDL, 2001	Delisting Accepted: TMDL Established and Approved.
Lake Okeechobee	3212D	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Lake Okeechobee	3212D	Un-ionized Ammonia	Application of New Methodology	Delisting Accepted: Independent Data Review 0/483 in past 7.5 years.
Lake Okeechobee	3212D	Nutrients	Addressed by Total Phosphorus TMDL, 2001	Delisting Accepted: TMDL Established and Approved.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Lake Okeechobee	3212E	Nutrients	Addressed by Total Phosphorus TMDL, 2001	Delisting Accepted: TMDL Established and Approved.
Lake Okeechobee	3212F	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Lake Okeechobee	3212G	Un-ionized Ammonia	Application of New Methodology	Delisting Accepted: Independent Data Review 0/32 in past 7.5 years.
Lake Okeechobee	3212G	Nutrients	Addressed by Total Phosphorus TMDL	Delisting Accepted: TMDL Established and Approved.
Lake Okeechobee	3212I	Nutrients	Addressed by Total Phosphorus TMDL	Delisting Accepted: TMDL Established and Approved.
Ochlockonee River Basin				
Ocklockonee River	1297A	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Ocklockonee River	1297B	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Ocklockonee River	1297F	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Random analysis of Category 2 waters for turbidity indicated that FDEP's verification process properly identified water quality limited segments and the original listing methodology for turbidity using the water quality index described in the 1996 FDEP 305(b) report was flawed because it did not compare sample data to water quality which resulted in many waterbodies whose samples did not exceed any water quality criteria to get identified as a WQLS. (New methodology acceptable and flaw confirmed.)
Little River	424	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Little River	424	TSS	No criteria for TSS. Analyzed for turbidity.	Delisting Accepted: Flaw accepted and Turbidity surrogate acceptable.
Lake Iamonia	442	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Ocklawaha River Basin				
Haynes Creek Reach	2817A	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Haynes Creek Reach	2817A	TSS	No criteria for TSS. Analyzed for turbidity.	Delisting Accepted: Flaw accepted and Turbidity surrogate acceptable.
Lake Apopka Outlet	2835A	Un-ionized Ammonia	Application of New Methodology	Delisting Accepted: Independent Data Review found 2/30 in 1995; 0/13 in 1996; and 0/10 in 1997. Lake Apopka proper sample results only contain 6 exceedances in 162 samples.
Lake Apopka Outlet	2835A	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Lake Apopka Outlet	2835A	TSS	No criteria for TSS. Analyzed for turbidity.	Delisting Accepted: Flaw accepted and Turbidity surrogate acceptable.
Little Lake Harris	2838B	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Dora Canal (Silver River Run)	2772	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Dora Canal (Silver River Run)	2772	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Dora Canal (Silver River Run)	2772	BOD	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Original listing methodology did not compare evidence to water quality standard. Independent review of data indicates low BOD levels. (1 mg/L avg. in 1999 and 0.2 mg/L avg. in 2001)
Sweetwater Branch	2711	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Sweetwater Branch	2711	Un-ionized Ammonia	Application of New Methodology	Delisting Accepted: Independent data review. (0/6 over past 7.5 years.)
Lake Alice	2719	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Orange Creek	2747	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (Only one exceedance of the 400 fecal threshold since 1995 in 22 samples. Only 1 exceedance in 17 samples of the total coliform samples in past 7.5 years.)
Orange Creek	2747	Iron	Application of New Methodology	Delisting Accepted: Independent data review. (No exceedances since 1998 in 16 samples.)

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Orange Creek	2747	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Orange Lake Reach	2749	DO	Application of New Methodology	Delisting Not Accepted: WBID split into two: Orange Lake Reach (2749) and Orange Lake (2749A). Orange Lake Reach is currently designated for Category 3c which are not assessed for 303(d) removal according to FDEP. Orange Lake is currently verified as impaired, but remains in Category 3c because the pollutant is not identified. Both will be added to the 303(d) list by EPA.
Orange Lake Reach	2749	Un-ionized Ammonia	Application of New Methodology	Delisting Accepted: Independent Data Review: 2 exceedances in 64 samples since 1992. Both exceedances occurred on 1/3/95 and subsequent sampling far below magnitudes reflected in those samples. Unsure what caused high results in those samples. No exceedance reflected in sampling since that day.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Hatchet Creek	2688	Coliforms (fecal)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Not Accepted: Independent data review. (7 exceedances of the 400 fecal threshold in 25 samples in past 7.5 years.)
Hatchet Creek	2688	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Hatchet Creek	2688	COD	Meets Standards: No COD values, Low BOD5 Values	Delisting Accepted: No standard to judge COD values against. Listed for Dissolved Oxygen.
Tumbling Creek	2718A	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Blue Springs	2838C	DO	Natural conditions	Delisting Accepted: Independent review conducted by EPA which supported natural conditions are below 5 mg/L.
Holiday Springs	2838D	DO	Natural conditions	Delisting Accepted: Independent review conducted by EPA which supported natural conditions are below 5 mg/L.
Lake Yale Canal	2807	Un-ionized Ammonia	Application of New Methodology	Delisting Accepted: Independent data review. (1/7 exceedances over past 7.5 years.)

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Noncontributing Area	2809	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Ocklawaha/Sunnyhill	2740F	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Ocklawaha/Sunnyhill	2740F	TSS	No criteria for TSS. Analyzed for turbidity.	Delisting Accepted: Flaw accepted and Turbidity surrogate acceptable.
Helena Run	2832	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting not Accepted: While FDEP did collect data to analyze this waterbody for DO and it was found not to be impaired based on that data, EPA and FDEP received data after submittal of the list which overturns FDEP's prior decision as indicated by their most recent master list. Therefore, this good cause justification is no longer valid and cannot be approved by EPA.
Helena Run	2832	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Helena Run	2832	Un-ionized Ammonia	Application of New Methodology	Delisting Accepted: Independent Data Review (2/27 in most recent data (1992-1994) and all non exceedance data concentrations are very low.)
Helena Run	2832	TSS	No criteria for TSS. Analyzed for turbidity.	Delisting Accepted: Flaw accepted and Turbidity acceptable.
Lake Dora	2831	Lead	Application of New Methodology	Delisting Accepted: Independent data review. (No exceedances over past 7.5 years.)
Lake Beauclair Outlet	2834B	Un-ionized Ammonia	Application of New Methodology	Delisting Accepted: Independent data review. (No exceedances in 21 samples since 1995; 3/28 exceedances in 1995)
Lake Harris	2838A	Un-ionized Ammonia	Application of New Methodology	Delisting Accepted: Independent data review. (No exceedances in 36 samples since 1995; 6/24 in 1995)
Ocklawaha River above Daisy	2740D	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Ocklawaha River above Daisy	2740D	Coliforms (fecal)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Not Accepted: Independent review of data indicates 7/25 exceedances of 400 coliform standard. Expected exceedance rate of more than 10%.
Lochloosa Lake	2738	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Lochloosa Lake	2738	Un-ionized Ammonia	Application of New Methodology	Delisting Accepted: Independent data review. (No exceedances over past 7.5 years.)
Palatlahaka Lake	2839G	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Ocklawaha River above Lake Ocklawaha	2740C	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (2/51 samples exceeded 400 FCU; and 4/47 exceeded 1,000 TCU over past 7.5 years.)
St. Marks River Basin				
Munson Slough (above lake)	807D	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Central Drainage Ditch	857	BOD, COD	Analyzed for DO using new methodology	Delisting Accepted: Independent Data Review revealed that water quality data does not indicate DO impairment. Standard for BOD linked to DO impairment (5/65). No standard for COD, therefore DO is reasonable surrogate.
St. Augustine Branch	865	BOD	Analyzed for DO using new methodology	Delisting Accepted: Independent Data Review revealed that water quality data does not indicate DO impairment (1/30). Standard for BOD linked to DO impairment.
Santa Fe River Basin				
New River	3506	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (2 out of 30 samples exceed 400 CFU; 5/39 exceed for Total Coliform over past 7.5 years.)
New River	3506	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Alligator Lake	3516	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (2 out of 30 samples exceed 400 CFU; 2/24 exceed for Total Coliform over past 7.5 years.)

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Santa Fe River	3605A	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Suwannee River Basin				
Suwannee River (Upper)	3341	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Swift Creek	3375	TSS	No criteria for TSS. Analyzed for turbidity.	Delisting Accepted: Flaw accepted and Turbidity acceptable.
Roaring Creek	3392	DO	Natural conditions	Delisting Accepted: Independent review conducted by EPA which supported natural conditions are below 5 mg/L.
Roaring Creek	3392	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Roaring Creek	3392	TSS	No criteria for TSS. Analyzed for turbidity.	Delisting Accepted: Flaw accepted and Turbidity acceptable.
Camp Branch	3401	DO	Natural conditions	Delisting Accepted: Independent review conducted by EPA which supported natural conditions are below 5 mg/L. DO fluctuations exhibit the same range as reference streams indicating nutrient balance.
Camp Branch	3401	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Suwannee River (Lower)	3422B	DO	Other Pollution Control Requirements in Place	Delisting Not Accepted: Other Pollution Control Requirements still in Progress. DO verified as impaired. 66 exceedances in 356 samples taken over past 7.5 years.
Suwannee River (Lower)	3422B	Nutrients	Other Pollution Control Requirements in Place	Delisting Not Accepted: Other Pollution Control Requirements still in Progress. Algal mats reported in FDEP 305(b) report.
Falling Creek	3477	DO	Natural conditions	Delisting Accepted: Independent review conducted by EPA which supported natural conditions are below 5 mg/L.
Falling Creek	3477	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	<p>Delisting Not Accepted for Fecal Coliform: Independent Data review found 10 out of 62 samples exceed 400 CFU.</p> <p>Delisting Accepted for Total Coliforms: Flaw confirmed and independent data review found 5/39 exceed for Total Coliform over past 7.5 years.)</p>

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Deep Creek	3388	DO	Natural conditions	Delisting Accepted: Independent review conducted by EPA which supported natural conditions are below 5 mg/L.
Deep Creek	3388	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Withlacoochee River	3315	DO, Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Tampa Bay Basin				
Brooker Creek	1474	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Not Accepted for fecal coliform: 7/48 samples exceeded the 400 criteria for fecal coliform.
Brooker Creek	1474	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Rocky Creek	1507A	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (3/48 samples exceed 400 fecal coliform standard; 1/46 exceed for total coliform over past 7.5 years.)
Double Branch	1513	Coliforms (fecal)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Not Accepted: 22/85 samples exceeded the 400 criteria for fecal coliform.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Sweetwater Creek	1516	Coliforms (fecal)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (8 out of 87 samples exceed 400 CFU criteria over past 7.5 years.)
Moccasin Creek	1530	Coliforms (total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (2 out of 33 samples exceed for total coliforms over past 7.5 years.)
Sixmile Creek	1536B	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (4/84 samples exceed 400 fecal coliform standard; 11/78 exceed for total coliform over past 7.5 years.)
Sixmile Creek	1536B	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Palm River	1536E	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (5/95 samples exceed 400 fecal coliform standard; 10/100 exceed for total coliform over past 7.5 years.)

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Tampa Bay, Upper	1558C	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (1/36 samples exceed 43 fecal coliform standard over past 3 years; 3/86 exceed for total coliform over past 7.5 years.)
Hillsborough Bay, Lower	1558D	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Hillsborough Bay, Upper	1558E	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Hillsborough Bay, Upper	1558E	Nutrients	Other Pollution Control Requirements in Place	Delisting Accepted: TMDL established and approved.
Old Tampa Bay, Lower	1558F	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (0/22 samples exceed 43 fecal coliform standard over past 3 years; 0/40 exceed for total coliform over past 7.5 years.)
Old Tampa Bay	1558G	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (0/48 samples exceed 43 fecal coliform standard over the past 3 years; 1/42 exceed for total coliform over past 7.5 years.)

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Old Tampa Bay	1558H	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (4/163 samples exceed 43 fecal coliform standard over the past 3 years; 12/169 exceed for total coliform over past 7.5 years.)
Old Tampa Bay	1558H	Nutrients	Other Pollution Control Requirements in Place	Delisting Accepted: TMDL established and approved.
Old Tampa Bay	1558I	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (3/104 samples exceed 43 fecal coliform standard in past 3 years; 8/145 exceed for total coliform over past 7.5 years.)
Old Tampa Bay	1558I	Nutrients	Other Pollution Control Requirements in Place	Delisting Accepted: TMDL established and approved.
Direct Runoff to Bay	1559	DO, Coliforms, Nutrients	Flaw in original listing: Data does not represent WBID.	Delisting Accepted - impairment of actual waterbody not assessed correctly because the data used as evidence of impairment does not represent the waterbody in question.
Channel G	1563	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting for Fecal Coliform not Accepted: 23/96 samples exceed 400 standard. Delisting for Total Coliform Accepted: 11/94 samples exceed standard.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Bishop Creek	1569	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Alligator Lake	1574A	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (0/27 samples exceed 400 fecal coliform standard; 0/24 exceed for total coliform over past 7.5 years.)
Mullet Creek	1575	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Direct Runoff to Bay	1593	DO	Flaw in original listing: Data does not represent WBID.	Delisting Accepted - impairment of actual waterbody not assessed correctly because the data used as evidence of impairment does not represent the waterbody in question.
Uceta Yard Drain	1599	Nutrients	Flaw in original listing: Data does not represent WBID.	Delisting Accepted - impairment of actual waterbody not assessed correctly because the data used as evidence of impairment does not represent the waterbody in question.
Direct Runoff to Bay	1601	DO, Coliforms, Nutrients	Flaw in original listing: Data does not represent WBID.	Delisting Accepted - impairment of actual waterbody not assessed correctly because the data used as evidence of impairment does not represent the waterbody in question.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Direct Runoff to Bay	1603	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Direct Runoff to Bay	1603	BOD, COD	Analyzed for DO using new methodology	Delisting Accepted: Standard for BOD linked to DO impairment reported as meeting standards. No standard for COD, therefore DO is reasonable surrogate.
Direct Runoff to Bay	1603	TSS	No criteria for TSS. Analyzed for turbidity.	Delisting Accepted: Flaw accepted and Turbidity acceptable.
Allen Creek	1604	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (1/19 samples exceed 400 fecal coliform standard since 1995; 3/35 exceed for total coliform over past 7.5 years.)
Delaney Creek	1605	Turbidity	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Direct Runoff to Bay	1609	DO, Coliforms, Nutrients	Flaw in original listing: Data does not represent WBID.	Delisting Accepted - impairment of actual waterbody not assessed correctly because the data used as evidence of impairment does not represent the waterbody in question.
Direct Runoff to Bay	1624	Nutrients	Other Pollution Control Requirements in Place	Delisting Accepted: TMDL established and approved.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Cross Canal (North)	1625	Coliforms (total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (3/35 exceed for total coliform over past 7.5 years.)
Long Branch	1627	Nutrients	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.
Direct Runoff to Bay	1630	N/A	Flaw in original listing: Listing Based on NPS Survey, no Data	Delisting Accepted: TMDL established and approved that addresses nutrient impairments from NPS survey.
Bullfrog Creek	1666A	Coliforms (fecal)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting not Accepted: Flaw confirmed and independent data review. (26/84 samples exceed 400 fecal coliform standard over past 7.5 years.)
Smacks Bayou	1683	Coliforms (total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (4/31 exceed for total coliform over past 7.5 years.)
Coffeepot Bayou	1700	Coliforms (total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (6/34 exceed for total coliform over past 7.5 years.)
Big Bayou - Basin W	1709	DO	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: New methodology acceptable and flaw confirmed.

1998 List Water Quality Limited Segments FDEP is Requesting Delisting Approval from EPA.				
Water Segment Name	Water Body Identification (WBID)	Parameter(s) Delisted	Rationale for Delisting	EPA's Analysis & Conclusion
Big Bayou - Basin W	1709	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (0/21 samples exceed 400 fecal coliform standard; 1/22 exceed for total coliform over past 7.5 years.)
Big Bayou - Basin W	1709	Nutrients	Other Pollution Control Requirements in Place	Delisting Accepted: Based on an independent data review, waterbody does not contain sufficient evidence of current nutrient impairment. Chlorophyll a levels do not appear to be currently elevated. See write up of Tampa Bay pollution control requirements.
Cockroach Bay	1778	Coliforms (fecal and total)	Application of New Methodology & Flaw in Original Listing Methodology	Delisting Accepted: Flaw confirmed and independent data review. (0/23 samples exceed 400 fecal coliform standard; 1/22 exceed for total coliform over past 7.5 years.)

Appendix K

Water Quality Limited Segments EPA is Adding to the Florida 303(d) List			
Water Segment Name	Water Body Identification (WBID)	Pollutant	TMDL Development Priority
Everglades - West Coast Basin			
Estero River	3258D	Dissolved Oxygen (DO)	Low
Tenmile Canal	3258G	DO	Low
Barron River Canal (north)	3261C	DO	Low
Imperial River	3258E	Fecal Coliforms	Low
Runoff to Gulf	3259M	Fecal Coliforms	Low
Golden Gate Canal	3259F	DO	Low
Henderson Creek Canal	3259H	DO	Low
Lake Okeechobee Basin			
Turkey Slough	3199A	DO	Low
Popash Slough	3205C	DO	Low
L-63 Canal	3203C	DO	Low
Ocklawaha River Basin			
Silver River	2772	DO	Low
Big Creek Reach	1406	DO	Low
Lake Wilson	2839C	DO	Low
Deep Creek Rodman Reservoir	2730	DO	Low
Black Lake Outlet	2875	Un-ionized NH ₃	Low
Lake Weir	2790A	Copper	Low
Ocklawaha River above Daisy	2740D	Fecal Coliforms	Low
Hatchet Creek	2688	Fecal Coliforms	Low
Helena Run	2832	DO	Low
Little Creek	2883	DO	Low
Lake Susan	2839Y	DO	Low
Orange Lake Reach	2749	DO	Low
Orange Lake	2749A	DO	Low
St. Marks - Ochlockonee River Basin			
St. Marks River	793B	DO	Low
Ochlockonee River	1297A	Fecal Coliforms	Low
Ochlockonee Bay	1248A	Fecal Coliforms	Low
Ochlockonee Bay	1248B	Fecal Coliforms	Low
Little River	424	Fecal Coliforms	Low
Chairs Creek	1255	Fecal Coliforms	Low
Ochlockonee Bay Gulf	8025	Fecal Coliforms	Low
Direct Runoff to Bay	1176	Fecal Coliforms	Low
Direct Runoff to Gulf	1239	Fecal Coliforms	Low
Dickerson Bay	1223	Fecal Coliforms	Low
McBride Slough	1028	DO	Low
Lake Iamonia Outlet	442	DO	Low
Lake Miccosukee	791L	DO	Low
Lost Creek	995	DO	Low

Water Quality Limited Segments EPA is Adding to the Florida 303(d) List			
Water Segment Name	Water Body Identification (WBID)	Pollutant	TMDL Development Priority
Chicken Branch	971	DO	Low
Copeland Sink Drain	808	DO	Low
Suwannee River Basin			
Aucilla River	3310	DO	Low
Anderson Bay Drain	3430	DO	Low
Price Creek	3517	DO	Low
Olustee Creek	3504A	DO	Low
Lake Rowell	3598B	DO	Low
Steinhatchee River	3573	DO	Low
Steinhatchee River	3573C	DO	Low
California (Rocky) Creek	3577	DO	Low
Pareners Branch	3626	Total Coliforms	Low
Blue Creek	3682	Fecal Coliforms	Low
Manatee Springs	3422R	Biology	Low
Lower Suwannee River	3422	Nutrients	Low
Lower Suwannee River	3422A	Nutrients	Low
Lower Suwannee River	3422B	DO	Low
Lower Suwannee River	3422B	Nutrients	Low
Lower Suwannee Estuary	3422D	Nutrients	Low
New River	3506	Fecal Coliforms	Low
Alligator Creek	3598C	Fecal Coliforms	Low
Falling Creek	3477	Fecal Coliforms	Low
Waccasassa River	3699	Fecal Coliforms	Low
Sanders Creek	3702	Fecal Coliforms	Low
Black Point Swamp	3729	Fecal Coliforms	Low
Peacock Slough	3483	DO	Low
Fenholloway @ Mouth	3473A	Dioxin (Fish Tissue)	Low
Cow Creek	3649	DO	Low
Santa Fe River	3605E	DO	Low
Lake Butler	3566	Nutrients (TSI)	Low
Tampa Bay Basin			
Cow Branch	1529	DO	Low
Lake Tarpon South Cove	1541C	DO	Low
Ben T. Davis North	1558HB	DO	Low
Beckett Lake - Open Water	1603C	DO	Low
Pinellas Point - Basin V	1709E	DO	Low
Terra Ceia Bay	1797A	Fecal Coliforms	Low
Channel G	1563	Fecal Coliforms	Low
Brooker Creek	1474	Fecal Coliforms	Low
Double Branch	1513	Fecal Coliforms	Low
Cow Branch	1529	Fecal Coliforms	Low
Allen Creek	1604	Fecal Coliforms	Low
Bullfrog Creek	1666A	Fecal Coliforms	Low

Water Quality Limited Segments EPA is Adding to the Florida 303(d) List			
Water Segment Name	Water Body Identification (WBID)	Pollutant	TMDL Development Priority
Frenchman's Creek Basin U	1709F	Fecal Coliforms	Low
Long Branch Tidal	1627B	DO	Low

Appendix L

303(d) List for the State of Florida

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
ALAFIA RIVER	SOUTH PRONG ALAFIA RIVER	1653	Coliforms, Nutrients		Low	Group 2	2008
ALAFIA RIVER	OWENS BRANCH	1675	Coliforms, Nutrients		Low	Group 2	2008
ALAFIA RIVER	BELL CREEK (Alafia River)	1660	Dissolved Oxygen, Nutrients, Coliforms		Low	Group 2	2008
ALAFIA RIVER	NORTH PRONG ALAFIA RIVER	1621E	Dissolved Oxygen, Nutrients, Coliforms		Low	Group 2	2008
ALAFIA RIVER	ALAFIA RIVER ABOVE HILLSBOROUGH BAY	1621G	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 2	2008
ALAFIA RIVER	THIRTYMILE CREEK	1639	Dissolved Oxygen, Coliforms, Nutrients		High	Group 2	2003
ALAFIA RIVER	BUCKHORN SPRING	1635	Nutrients		Low	Group 2	2008
ALAFIA RIVER	ENGLISH CREEK	1592C	Coliforms, Nutrients		Low	Group 2	2008
ALAFIA RIVER	TURKEY CREEK ABOVE LITTLE ALAFIA RIVER	1578B	Coliforms, Nutrients, Turbidity		Low	Group 2	2008
ALAFIA RIVER	POLEY CREEK	1583	Coliforms, Nutrients, Turbidity		Low	Group 2	2008
APALACHICOLA BAY	APALACHICOLA BAY	1274	Coliforms, Nutrients		High	Group 2	2003
APALACHICOLA BAY	APALACHICOLA BAY	1274B	Coliforms, Nutrients		High	Group 2	2003
APALACHICOLA RIVER	HUCKLEBERRY CREEK	1286	Nutrients, Coliforms		High	Group 2	2003
APALACHICOLA RIVER	APALACHICOLA RIVER-Scipio Creek	375A	Coliforms		High	Group 2	2003
APALACHICOLA RIVER	APALACHICOLA RIVER	375B	Coliforms		High	Group 2	2003
APALACHICOLA RIVER	CYPRESS CREEK (Double Bayou)	1262	Biology	Listing based on biological sampling.	Low	Group 2	2008
APALACHICOLA RIVER	HORSESHOE CREEK	1272	Coliforms, Dissolved Oxygen		Low	Group 2	2008
APALACHICOLA RIVER	APALACHICOLA RIVER	375D	Turbidity		High	Group 2	2003
APALACHICOLA RIVER	APALACHICOLA RIVER	375E	Coliforms		High	Group 2	2003

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
APALACHICOLA RIVER	GREGORY MILL CREEK	1135	Dissolved Oxygen, Nutrients, Turbidity, Total Suspended Solids		Low	Group 2	2008

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
APALACHICOLA RIVER	EQUILOXIC CREEK	1109A	Dissolved Oxygen, Turbidity, Mercury (Based on Fish Consumption Advisory).		Low	Group 2	2008 & 2011 (mercury)
APALACHICOLA RIVER	LITTLE GULLY CREEK	1039	Coliforms, Dissolved Oxygen, Turbidity		Low	Group 2	2008
APALACHICOLA RIVER	SWEETWATER CREEK	728	Coliforms, Dissolved Oxygen		Low	Group 2	2008
APALACHICOLA RIVER	FLAT CREEK	487	Coliforms, Nutrients, Turbidity, Total Suspended Solids		Low	Group 2	2008
APALACHICOLA RIVER	GLEN JULIA SPRING	393Z	Coliforms, Nutrients		Low	Group 2	2008
APALACHICOLA RIVER	NORTH MOSQUITO CREEK	384	Biology	Listing based on biological sampling.	Low	Group 2	2008
AUCILLA RIVER	AUCILLA RIVER	3310	Dissolved Oxygen		Low	Group 1	
BLACKWATER RIVER	BLACKWATER RIVER	24B		Listing based on NPS survey.	Low	Group 4	2011
BLACKWATER RIVER	BLACKWATER RIVER	24A	Total Suspended Solids, Coliforms, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2001 (coliforms), 2011
BLACKWATER RIVER	BUCKET BRANCH	356		Listing based on NPS survey.	Low	Group 4	2011
BLACKWATER RIVER	WEST FORK (Big Coldwater Creek-West Fork)	11A	Coliforms, Nutrients		Low	Group 4	2001 (coliforms), 2011
BLACKWATER RIVER	EAST FORK (Big Coldwater Creek-East Fork)	18A	Coliforms, Total Suspended Solids		Low	Group 4	2001 (coliforms), 2011
BLACKWATER RIVER	MANNING CREEK	127	Coliforms, Turbidity, Total Suspended Solids		Low	Group 4	2001 (coliforms), 2011
BLACKWATER RIVER	BLACKWATER RIVER	24D	Coliforms, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2001 (coliforms), 2011
BLACKWATER RIVER	MARE CREEK	88	Dissolved Oxygen, Turbidity		Low	Group 4	2011
BLACKWATER	BIG JUNIPER CREEK	19	Coliforms, Turbidity		Low	Group 4	2001

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
RIVER							(coliforms), 2011
BLACKWATER RIVER	BIG COLDWATER CREEK	18	Coliforms, Total Suspended Solids		Low	Group 4	2001 (coliforms), 2011
CALOOSAHATCHEE RIVER	MANUEL BRANCH	3240I	Dissolved Oxygen, Nutrients		Low	Group 3	2009
CALOOSAHATCHEE RIVER	BILLY CREEK	3240J	Dissolved Oxygen, Nutrients		High	Group 3	2004
CALOOSAHATCHEE RIVER	YELLOW FEVER CREEK	3240E	Dissolved Oxygen		Low	Group 3	2009
CALOOSAHATCHEE RIVER	NINEMILE CANAL	3237D	Nutrients, Dissolved Oxygen, Biochemical Oxygen Demand, Coliforms		High	Group 3	2004
CALOOSAHATCHEE RIVER	DAUGHTREY CREEK (East Branch Cocohatchee River & Popash Creek)	3240F	Nutrients, Dissolved Oxygen		High	Group 3	2004
CALOOSAHATCHEE RIVER	TROUT CREEK	3240G	Dissolved Oxygen, Coliforms, Biochemical Oxygen Demand		Low	Group 3	2009
CALOOSAHATCHEE RIVER	LAKE HICPOCHEE	3237C	Nutrients		High	Group 3	2004
CALOOSAHATCHEE RIVER	EAST CALOOSAHATCHEE	3237A	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand		Low	Group 3	2009
CHARLOTTE HARBOR	MATLACHA PASS	2065F	Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 2	2004, 2011 (mercury)
CHARLOTTE HARBOR	NORTH PRONG ALLIGATOR CREEK	2071	Dissolved Oxygen, Coliforms, Turbidity		Low	Group 2	2009
CHATTAHOOCHEE RIVER	THOMPSON POND	272	Coliforms, Nutrients		High	Group 2	2003
CHATTAHOOCHEE RIVER	LAKE SEMINOLE	60	Dissolved Oxygen, Nutrients		High	Group 2	2003
CHIPOLA RIVER	CHIPOLA RIVER (Dead Lakes)	51A	Coliforms, Turbidity, Mercury (Based on Fish Consumption Advisory)		High	Group 2	2003, 2011 (mercury)

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
CHIPOLA RIVER	CHIPOLA RIVER	51B	Nutrients		High	Group 2	2003
CHIPOLA RIVER	OTTER CREEK	819	Coliform, Nutrients		Low	Group 2	2008
CHIPOLA RIVER	MUDDY BRANCH	175	Dissolved Oxygen, Coliforms, Nutrients		High	Group 2	2003
CHOCTAWHATCHEE BAY	INDIAN BAYOU (Old Pass Lagoon)	917	Dissolved Oxygen, Nutrients		Low	Group 3	2009
CHOCTAWHATCHEE BAY	CHOCTAWHATCHEE BAY AB C	778D	Dissolved Oxygen, Nutrients		High	Group 3	2004
CHOCTAWHATCHEE BAY	JOES BAYOU	906	Nutrients		Low	Group 3	2009

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
CHOCTAWHATCHEE BAY	CHOCTAWHATCHEE BAY AB C	778C	Biochemical Oxygen Demand, Coliforms, Nutrients, Turbidity, Total Suspended Solids, Mercury (Based on Fish Consumption Advisory)		Low	Group 3	2009, 2011 (mercury)
CHOCTAWHATCHEE BAY	CHOCTAWHATCHEE BAY AB C	778B	Coliforms		High	Group 3	2004
CHOCTAWHATCHEE BAY	BOGGY BAYOU	692	Dissolved Oxygen		Low	Group 3	2009
CHOCTAWHATCHEE BAY	LAFAYETTE CREEK	646	Coliforms		Low	Group 3	2009
CHOCTAWHATCHEE RIVER	CHOCTAWHATCHEE RIVER	49E	Coliforms, Turbidity, Total Suspended Solids		High	Group 3	2004
CHOCTAWHATCHEE RIVER	BRUCE CREEK	343	Coliforms, Turbidity		Low	Group 3	2001 (coliforms), 2009
CHOCTAWHATCHEE RIVER	CHOCTAWHATCHEE RIVER	49	Coliforms, Turbidity, Total Suspended Solids, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2001 (coliforms), 2009, 2011 (mercury)
CHOCTAWHATCHEE RIVER	CAMP BRANCH	251	Coliforms, Nutrients, Turbidity		Low	Group 3	2001 (coliforms), 2009
CHOCTAWHATCHEE RIVER	CHOCTAWHATCHEE RIVER	49F	Coliforms, Nutrients, Total Suspended Solids, Turbidity, Mercury (Based on Fish Consumption Advisory)		Low	Group 3	2001 (coliforms), 2009, 2011 (mercury)
CHOCTAWHATCHEE RIVER	ALLIGATOR CREEK	123	Coliforms, Biological Oxygen Demand, Dissolved Oxygen, Nutrients, Turbidity		Low	Group 3	2001 (coliforms), 2009
CHOCTAWHATCHEE RIVER	SIKES CREEK	142	Coliforms, Dissolved Oxygen, Total Suspended Solids, Turbidity		Low	Group 3	2001 (coliforms), 2009
CHOCTAWHATCHEE RIVER	FISH BRANCH (Minnow Creek)	130	Coliforms, Dissolved Oxygen, Total Suspended Solids,		Low	Group 3	2001 (coliforms), 2009

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			Turbidity				
CRYSTAL RIVER TO ST. PETE	CLAM BAYOU DRAIN	1716	Dissolved Oxygen, Nutrients, Coliforms		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	ST JOE CREEK	1668A	Dissolved Oxygen, Coliforms, Nutrients, Total Suspended Solids, Biochemical Oxygen Demand		High	Group 5	2006
CRYSTAL RIVER TO ST. PETE	BONN CREEK (& Joe Creek & Cross Bayou Canal)	1668B	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Biochemical Oxygen Demand		High	Group 5	2006
CRYSTAL RIVER TO ST. PETE	PINELLAS PARK DITCH	1662	Dissolved Oxygen, Nutrients, Coliforms		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	SOUTH CROSS CANAL (Cross Bayou Canal South)	1641		Listing based on NPS survey.	High	Group 5	2006
CRYSTAL RIVER TO ST. PETE	LAKE SEMINOLE	1618	Coliforms, Nutrients		High	Group 5	2006
CRYSTAL RIVER TO ST. PETE	MCKAY CREEK	1633	Dissolved Oxygen, Nutrients, Coliforms		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	DIRECT RUNOFF TO GULF (Clearwater Harbor)	1528	Dissolved Oxygen, Nutrients		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	STEVENSON CREEK	1567	Dissolved Oxygen, Coliforms, Nutrients		High	Group 5	2006
CRYSTAL RIVER TO ST. PETE	CEDAR CREEK	1556	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	CURLEW CREEK	1538	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	DIRECT RUNOFF TO GULF (Minnow Creek)	1535	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	SUTHERLAND BAYOU	1527	Dissolved Oxygen, Nutrients		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	HEALTH SPRING	1512	Nutrients		Low	Group 5	2011

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
CRYSTAL RIVER TO ST. PETE	KLOSTERMAN BAYOU RUN (Innisbrook Canal)	1508	Dissolved Oxygen, Coliforms, Un-ionized Ammonia, Nutrients		High	Group 5	2006
CRYSTAL RIVER TO ST. PETE	SPRING BAYOU	1440A	Dissolved Oxygen, Coliforms, Nutrients, Biochemical Oxygen Demand		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	HOLLIN CREEK	1475	Dissolved Oxygen, Nutrients		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	SOUTH BRANCH (South Branch Anclote River)	1456	Dissolved Oxygen, Coliforms, Nutrients		High	Group 5	2006
CRYSTAL RIVER TO ST. PETE	ANCLOTE RIVER	1440	Dissolved Oxygen, Mercury (Based on Fish Consumption Advisory)		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	PITLACHASCOTEE RIVER	1409	Dissolved Oxygen, Coliforms		Low	Group 5	2011
CRYSTAL RIVER TO ST. PETE	CRYSTAL RIVER BAY	1345A	Biology	Listing based on biological sampling.	High	Group 5	2006
CRYSTAL RIVER TO ST. PETE	CRYSTAL RIVER	1341I	Nutrients		High	Group 5	2006
EAST COAST, MIDDLE	GOAT CREEK	3107	Dissolved Oxygen, Nutrients		Low	Group 5	2011
EAST COAST, MIDDLE	INDIAN RIVER ABOVE SEBASTIAN INLET	2963A	Dissolved Oxygen, Silver, Lead, Cadmium, Selenium, Thallium, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2003 (nutrients), 2006, 2011 (mercury)
EAST COAST, MIDDLE	DRAINED FARMLAND (C1, C69, C10)	3090	Dissolved Oxygen, Nutrients, Iron, Lead, Cadmium		Low	Group 5	2011
EAST COAST, MIDDLE	TURKEY CREEK	3098	Dissolved Oxygen, Nutrients		High	Group 5	2003 (nutrients), 2006
EAST COAST, MIDDLE	CRANE CREEK	3085	Dissolved Oxygen, Coliforms, Nutrients		High	Group 5	2002 (nutrients), 2006
EAST COAST, MIDDLE	CRANE CREEK	3085A	Iron, Nutrients		High	Group 5	2002 (nutrients),

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
							2006
EAST COAST, MIDDLE	INDIAN RIVER ABOVE MELBOURNE CAUSEWAY	2963B	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2003 (nutrients), 2006, 2011 (mercury)
EAST COAST, MIDDLE	EAU GALLIE RIVER	3082	Coliforms, Iron, Nutrients		High	Group 5	2002 (nutrients), 2006
EAST COAST, MIDDLE	HORSE CREEK	3081	Dissolved Oxygen		Low	Group 5	2011
EAST COAST, MIDDLE	INDIAN RIVER ABOVE MELBOURNE CAUSEWAY	2963C	Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2003 (nutrients), 2006, 2011 (mercury)
EAST COAST, MIDDLE	BANANA RIVER BELOW MATHERS	3057A	Dissolved Oxygen, Nutrients		High	Group 5	2003 (nutrients), 2006
EAST COAST, MIDDLE	NEWFOUND HARBOR	3044A	Dissolved Oxygen, Nutrients		Low	Group 5	2011
EAST COAST, MIDDLE	BANANA RIVER ABOVE 520 CAUSEWAY	3057B	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2003 (nutrients), 2006, 2011 (mercury)
EAST COAST, MIDDLE	SYKES CREEK/BARGE CAN.	3044B	Dissolved Oxygen, Nutrients		Low	Group 5	2011
EAST COAST, MIDDLE	INDIAN RIVER ABOVE 520 CAUSEWAY	2963D	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2003 (nutrients), 2006, 2011 (mercury)
EAST COAST, MIDDLE	BANANA RIVER ABOVE BARGE CANAL	3057C	Dissolved Oxygen		Low	Group 5	2011
EAST COAST, MIDDLE	ADDISON CANAL	3028		Listed for NPS assessment.	High	Group 5	2006
EAST COAST, MIDDLE	INDIAN R. AB NASA CSWY	2963E	Dissolved Oxygen		Low	Group 5	2011
EAST COAST, MIDDLE	INDIAN RIVER ABOVE M. BREWER	2963F	Iron, Lead		Low	Group 5	2011
EAST COAST, MIDDLE	MOSQUITO LAGOON	2924B	Coliforms		Low	Group 5	2011

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
EAST COAST, UPPER	SPRUCE CREEK	2674	Dissolved Oxygen, Nutrients, Coliforms, Iron		High	Group 5	2006
EAST COAST, UPPER	SPRUCE CREEK	2674A	Dissolved Oxygen, Nutrients, Iron		High	Group 5	2006
EAST COAST, UPPER	ROSE BAY	2672	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 5	2011
EAST COAST, UPPER	UNNAMED DITCH (B-19 Canal)	2666	Dissolved Oxygen, Nutrients		Low	Group 5	2011
EAST COAST, UPPER	TOMOKA RIVER	2634	Dissolved Oxygen, Coliforms, Nutrients, Iron, Lead		Low	Group 5	2011
EAST COAST, UPPER	TOMOKA RIVER	2634A	Nutrients, Iron, Lead		Low	Group 5	2011
EAST COAST, UPPER	HALIFAX RIVER	2363A	Nutrients, Coliforms		Low	Group 5	2011
EAST COAST, UPPER	MATANZAS RIVER	2363I	Coliforms, Nutrients		Low	Group 5	2011
EAST COAST, UPPER	HALIFAX RIVER	2363B	Nutrients, Iron, Lead, Copper		Low	Group 5	2011
EAST COAST, UPPER	PELLICER CREEK	2580B	Dissolved Oxygen, Coliforms, Nutrients, Iron, Lead		Low	Group 5	2011
EAST COAST, UPPER	CRACKER BRANCH (Pellicer Creek)	2553	Dissolved Oxygen, Coliforms, Iron		Low	Group 5	2011
EAST COAST, UPPER	PALM COAST	2363D	Dissolved Oxygen, Coliforms, Nutrients, Thallium, Silver, Lead, Cadmium, Selenium		Low	Group 5	2011
EAST COAST, UPPER	GUANA RIVER	2320	Dissolved Oxygen, Coliforms		Low	Group 5	2011
ECONFINA-FENHOLLOWAY	ROCKY CREEK	3489	Turbidity, Coliforms (fecal & total)		Low	Group 1	2002
ECONFINA-FENHOLLOWAY	BEVINS (BOGGY) CREEK	3603	Dissolved Oxygen, Biochemical Oxygen Demand, Coliforms (fecal & total)		Low	Group 1	2002

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
ECONFINA-FENHOLLOWAY	STEINHATCHEE RIVER	3573	Dissolved Oxygen		Low	Group 1	
ECONFINA-FENHOLLOWAY	STEINHATCHEE RIVER	3573B	Dissolved Oxygen		Low	Group 1	2002
ECONFINA-FENHOLLOWAY	STEINHATCHEE RIVER	3573C	Dissolved Oxygen		Low	Group 1	
ECONFINA-FENHOLLOWAY	FENHOLLOWAY AT MOUTH	3473A	Dissolved Oxygen, Coliforms (total), Nutrients, Biochemical Oxygen Demand, Dioxin (Based on Fish Consumption Advisory)		High	Group 1	2002
ECONFINA-FENHOLLOWAY	FENHOLLOWAY BELOW PULP	3473B	Dissolved Oxygen, Nutrients, Un-ionized Ammonia, Biochemical Oxygen Demand, Conductivity, Mercury (Based on Fish Consumption Advisory)		High/Medium	Group 1	2002, 2007 (conductivity), 2011 (mercury)
ECONFINA-FENHOLLOWAY	FENHOLLOWAY ABOVE PULP	3473C	Dissolved Oxygen		High	Group 1	2002
ECONFINA-FENHOLLOWAY	ECONFINA RIVER	3402	Cadmium		Low	Group 1	2002
ECONFINA-FENHOLLOWAY	CALIFORNIA (ROCKY) CREEK	3577	Dissolved Oxygen		Low	Group 1	
ESCAMBIA RIVER	ESCAMBIA RIVER	10F	Coliforms, Total Suspended Solids, Turbidity, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2011
ESCAMBIA RIVER	ESCAMBIA RIVER	10E	Coliforms, Dissolved Oxygen, Turbidity, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2011
ESCAMBIA RIVER	ESCAMBIA RIVER	10D	Coliforms, Total Suspended Solids, Turbidity, Mercury		Low	Group 4	2011

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			(Based on Fish Consumption Advisory)				
ESCAMBIA RIVER	PINE BARREN CREEK	5	Coliforms, Turbidity		Low	Group 4	2011
ESCAMBIA RIVER	LITTLE PINE BARREN CREEK	87	Coliforms, Turbidity		Low	Group 4	2011
ESCAMBIA RIVER	BRAY MILL CREEK	36	Nutrients		Low	Group 4	2011
ESCAMBIA RIVER	CANOE CREEK	7	Coliforms		Low	Group 4	2011
ESCAMBIA RIVER	ESCAMBIA RIVER	10C	Coliforms, Total Suspended Solids, Turbidity, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2011
ESCAMBIA RIVER	BIG ESCAMBIA CREEK	10	Coliforms, Total Suspended Solids, Turbidity		Low	Group 4	2011
EVERGLADES-WEST COAST	EVERGLADES NATIONAL PARK - SHARK SLOUGH	3289	Dissolved Oxygen, Iron, Mercury (Based on Fish Consumption Advisory), Nutrients		Low	Group 1	2007, 2011 (mercury)
EVERGLADES-WEST COAST	EVERGLADES NATIONAL PARK - L-67 CULVERT US41	3289J	Dissolved Oxygen, Iron		Low	Group 1	2007
EVERGLADES-WEST COAST	EVERGLADES NATIONAL PARK - TAYLOR SLOUGH	3289K	Dissolved Oxygen, Iron		Low	Group 1	2007
EVERGLADES-WEST COAST	TAMIAMI CANAL	3261B	Dissolved Oxygen, Mercury (Based on Fish Consumption Advisory), Cadmium		Low	Group 1	2007, 2011 (mercury)
EVERGLADES-WEST COAST	BARRON RIVER CANAL (North)	3261C	Dissolved Oxygen		Low	Group 1	
EVERGLADES-WEST COAST	NAPLES BAY	3259G	Nutrients		Low	Group 1	2007
EVERGLADES-WEST COAST	GORDON RIVER	3259C	Dissolved Oxygen, Biochemical Oxygen Demand, Coliforms (fecal & total)		Low	Group 1	2007

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
EVERGLADES-WEST COAST	GORDON RIVER CANAL	3259D	Dissolved Oxygen		Medium	Group 1	2007
EVERGLADES-WEST COAST	HENDERSON CREEK CANAL	3259E	Dissolved Oxygen		Medium	Group 1	2007
EVERGLADES-WEST COAST	GOLDEN GATE CANAL	3259F	Dissolved Oxygen		Low	Group 1	
EVERGLADES-WEST COAST	HENDERSON CREEK CANAL	3259H	Dissolved Oxygen		Low	Group 1	
EVERGLADES-WEST COAST	BLACKWATER RIVER	3259L	Dissolved Oxygen		Medium	Group 1	2007
EVERGLADES-WEST COAST	LAKE TRAFFORD	3259W	Nutrients		Low	Group 1	2007
EVERGLADES-WEST COAST	COCOHATCHEE RIVER	3259A	Dissolved Oxygen, Coliforms (fecal & total), Biochemical Oxygen Demand		Low	Group 1	2007
EVERGLADES-WEST COAST	COCOHATCHEE RIVER CANAL	3259B	Dissolved Oxygen, Iron		Medium	Group 1	2007
EVERGLADES-WEST COAST	IMPERIAL RIVER (fresh)	3258E	Dissolved Oxygen, Nutrients (chla), Coliforms (fecal)		Low	Group 1	2007
EVERGLADES-WEST COAST	IMPERIAL RIVER (marine)	3258E1	Copper		Medium	Group 1	2007
EVERGLADES-WEST COAST	HENDRY CREEK (fresh)	3258B	Nutrients, Dissolved Oxygen		Medium/ Low	Group 1	2007
EVERGLADES-WEST COAST	HENDRY CREEK (marine)	3258B1	Dissolved Oxygen, Nutrients (chla), Coliforms (fecal)		Medium	Group 1	2007
EVERGLADES-WEST COAST	ESTERO BAY DRAINAGE (Mullock Creek)	3258C	Dissolved Oxygen, Nutrients (chla)		Medium	Group 1	2007
EVERGLADES-WEST COAST	ESTERO RIVER (fresh)	3258D	Dissolved Oxygen		Low	Group 1	
EVERGLADES-WEST COAST	ESTERO RIVER (marine)	3258D1	Dissolved Oxygen, Nutrients (chla), Copper		Medium	Group 1	2007

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
EVERGLADES-WEST COAST	TENMILE CANAL	3258G	Dissolved Oxygen		Low	Group 1	
EVERGLADES-WEST COAST	SPRING CREEK (fresh)	3258H	Dissolved Oxygen		Low	Group 1	2007
EVERGLADES-WEST COAST	SPRING CREEK (marine)	3258H1	Dissolved Oxygen, Nutrients (chla), Copper		Medium	Group 1	2007
EVERGLADES-WEST COAST	RUNOFF TO GULF	3259M	Fecal Coliform		Low	Group 1	
EVERGLADES-WEST COAST	SOUTHWEST GULF 5	8065	Bacteria (shellfish)		Medium	Group 1	2007
FISHEATING CREEK	HARNEY POND CANAL	3204	Dissolved Oxygen, Lead, Nutrients		Low	Group 4	2010
FISHEATING CREEK	INDIAN PRAIRIE CANAL	3206	Dissolved Oxygen, Coliforms, Nutrients		High	Group 4	2005
FLORIDA KEYS	FLORIDA KEYS		Nutrients		Low	Group 5	2011
GULF COAST	FLORIDA GULF COAST	8999	Mercury (Based on Fish Consumption Advisory)	Includes WBIDs 8025, 8026, 8049, 8060, 8061, 8062, 8063, 8064, and 8065	Low	Group 1	2011
HILLSBOROUGH RIVER	CHANNELIZED STREAM (Pemberton Creek)	1483	Nutrients, Coliforms		Low	Group 2	2008
HILLSBOROUGH RIVER	TWO HOLE BRANCH	1489	Nutrients, Turbidity, Biochemical Oxygen Demand, Coliforms		Low	Group 2	2008
HILLSBOROUGH RIVER	SPARKMAN BRANCH	1561	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Total Suspended Solids		High	Group 2	2003
HILLSBOROUGH RIVER	MILL CREEK	1542A	Dissolved Oxygen, Coliforms, Nutrients, Un-ionized Ammonia, Lead		Low	Group 2	2008

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
HILLSBOROUGH RIVER	HILLSBOROUGH RIVER	1443A	Dissolved Oxygen, Coliforms, Nutrients, Total Suspended Solids, Mercury (Based on Fish Consumption Advisory)		Low	Group 2	2008, 2011 (mercury)
HILLSBOROUGH RIVER	HILLSBOROUGH RIVER	1443E	Nutrients, Mercury (Based on Fish Consumption Advisory), Coliforms		High	Group 2	2003, 2011 (mercury)
HILLSBOROUGH RIVER	LAKE HUNTER	1543	Nutrients		High	Group 2	2003
HILLSBOROUGH RIVER	BAKER CREEK	1522C	Dissolved Oxygen, Coliforms, Lead, Nutrients, Turbidity		High	Group 2	2003
HILLSBOROUGH RIVER	PEMBERTON CREEK	1542	Dissolved Oxygen, Nutrients		Low	Group 2	2008
HILLSBOROUGH RIVER	LAKE THONOTOSASSA	1522B	Dissolved Oxygen, Coliforms, Un-ionized Ammonia, Lead, Nutrients		High	Group 2	1998 (nutrients), 2003
HILLSBOROUGH RIVER	COW HOUSE CREEK	1534	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Total Suspended Solids		High	Group 2	2003
HILLSBOROUGH RIVER	FLINT CREEK	1522A	Dissolved Oxygen, Coliforms, Lead, Nutrients, Turbidity, Biochemical Oxygen Demand		High	Group 2	2003
HILLSBOROUGH RIVER	HILLSBOROUGH RIVER	1443B	Dissolved Oxygen, Coliforms, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 2	2003, 2011 (mercury)
HILLSBOROUGH RIVER	ITCHEPACKASASSA CREEK	1495B	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand		High	Group 2	2003
HILLSBOROUGH RIVER	HILLSBOROUGH RIVER	1443D	Coliforms, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 2	2003, 2011 (mercury)
HILLSBOROUGH	BLACKWATER	1482	Dissolved Oxygen,		High	Group 2	2003

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
RIVER	CREEK		Coliforms, Nutrients, Turbidity, Biochemical Oxygen Demand				
HILLSBOROUGH RIVER	CYPRESS CREEK	1402	Dissolved Oxygen, Coliforms, Nutrients		High	Group 2	2003
HILLSBOROUGH RIVER	BIG DITCH	1469	Coliforms, Nutrients, Turbidity		Low	Group 2	2008
HILLSBOROUGH RIVER	TROUT CREEK	1455	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 2	2008
HILLSBOROUGH RIVER	CRYSTAL SPRINGS	1462A	Dissolved Oxygen, Nutrients		High	Group 2	2003
HILLSBOROUGH RIVER	NEW RIVER	1442	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Total Suspended Solids		High	Group 2	2003
INDIAN RIVER, SOUTH	BELCHER CANAL/TAYLOR CREEK	3163	Dissolved Oxygen, Nutrients		High	Group 5	2002 (nutrients), 2006
INDIAN RIVER, SOUTH	SOUTH INDIAN RIVER	5003C	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2002 (nutrients), 2006, 2011 (mercury)
INDIAN RIVER, SOUTH	SEBASTIAN RIVER	3129B	Dissolved Oxygen, Iron		High	Group 5	2006
INDIAN RIVER, SOUTH	SOUTH INDIAN RIVER	5003D	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2002 (nutrients), 2006, 2011 (mercury)
INDIAN RIVER, SOUTH	FELSMERE CANAL	3136	Dissolved Oxygen, Nutrients, Total Suspended Solids		High	Group 5	2002 (nutrients), 2006
INDIAN RIVER, SOUTH	C-54 CANAL	3135	Dissolved Oxygen, Nutrients		High	Group 5	2002 (nutrients), 2006
INDIAN RIVER, SOUTH	SEBASTIAN RIVER ABOVE INDIAN RIVER	3129A	Dissolved Oxygen, Nutrients		High	Group 5	2002 (nutrients), 2006

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
INDIAN RIVER, SOUTH	NORTH PRONG SEBASTIAN RIVER	3128	Dissolved Oxygen, Copper, Nutrients, Turbidity, Total Suspended Solids		High	Group 5	2002 (nutrients), 2006
KISSIMMEE RIVER	KISSIMMEE RIVER	3209	Dissolved Oxygen, Nutrients		High	Group 4	2005
KISSIMMEE RIVER	CHANDLER SLOUGH	3188A	Dissolved Oxygen, Nutrients		High	Group 4	2005
KISSIMMEE RIVER	S-65D	3188	Dissolved Oxygen, Nutrients		High	Group 4	2005
KISSIMMEE RIVER	OAK CREEK	3192C	Nutrients, Dissolved Oxygen, Coliforms		High	Group 4	2005
KISSIMMEE RIVER	EIGHTMILE SLOUGH (Ice Cream Slough)	3186D	Dissolved Oxygen		Low	Group 4	2010
KISSIMMEE RIVER	KISSIMMEE RIVER	3186B	Dissolved Oxygen, Biochemical Oxygen Demand		High	Group 4	2005
KISSIMMEE RIVER	BLANKET BAY SLOUGH	3186C	Dissolved Oxygen, Nutrients		Low	Group 4	2010
KISSIMMEE RIVER	LAKE KISSIMMEE SOUTH	3183E	Dissolved Oxygen, Lead, Cadmium, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)
KISSIMMEE RIVER	LAKE MARIAN	3184	Nutrients		Low	Group 4	2010
KISSIMMEE RIVER	LAKE KISSIMMEE MID	3183B	Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)
KISSIMMEE RIVER	LAKE KISSIMMEE NORTH	3183A	Nutrients, Turbidity, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)
KISSIMMEE RIVER	KISSIMMEE RIVER	3156A	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand		Low	Group 4	2010
KISSIMMEE RIVER	LAKE CYPRESS	3180A	Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
KISSIMMEE RIVER	DEAD RIVER	1472C	Nutrients, Turbidity		High	Group 4	2005
KISSIMMEE RIVER	CANOE CREEK	3181	Turbidity		Low	Group 4	2010
KISSIMMEE RIVER	REEDY CREEK	3170A	Nutrients, Turbidity		High	Group 4	2005
KISSIMMEE RIVER	LAKE TOHOPEKALIGA SOUTH	3173C	Un-ionized Ammonia, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)
KISSIMMEE RIVER	HORSESHOE CREEK	1436	Dissolved Oxygen, Coliforms, Nutrients		High	Group 4	2005
KISSIMMEE RIVER	LAKE TOHOPEKALIGA NORTH	3173A	Un-ionized Ammonia, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)
KISSIMMEE RIVER	REEDY CREEK	3170C	Dissolved Oxygen, Nutrients, Turbidity, Coliforms		High	Group 4	2005
KISSIMMEE RIVER	LAKE CENTER	3174	Dissolved Oxygen, Nutrients		Low	Group 4	2010
KISSIMMEE RIVER	EAST LAKE TOHOPEKALIGA	3172	Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2011
KISSIMMEE RIVER	BONNET CREEK	3170D	Nutrients, Turbidity		High	Group 4	2005
KISSIMMEE RIVER	SHINGLE CREEK	3169A	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Biochemical Oxygen Demand		Low	Group 4	2010
KISSIMMEE RIVER	LAKE HOLDEN	3168H	Nutrients, Un-ionized Ammonia		Low	Group 4	2010
LAKE OKEECHOBEE	TURKEY SLOUGH	3199A	Dissolved Oxygen		Low	Group 1	
LAKE OKEECHOBEE	L-63 CANAL	3203C	Dissolved Oxygen		Low	Group 1	
LAKE OKEECHOBEE	POPASH SLOUGH	3205C	Dissolved Oxygen		Low	Group 1	

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
LAKE OKEECHOBEE	LAKE OKEECHOBEE	3212G	Iron		High	Group 1	2002
LAKE OKEECHOBEE	LAKE OKEECHOBEE	3212D	Iron		High	Group 1	2002
LAKE OKEECHOBEE	LAKE OKEECHOBEE	3212E	Iron		High	Group 1	2002
LAKE OKEECHOBEE	LAKE OKEECHOBEE	3212B	Coliforms (fecal & total)		High	Group 1	2002
LAKE OKEECHOBEE	S-135	3213C	Dissolved Oxygen, Nutrients (chla)		High	Group 1	2002
LAKE OKEECHOBEE	LETTUCE CREEK	3213A	Dissolved Oxygen, Nutrients (chla)		High	Group 1	2002
LAKE OKEECHOBEE	MYRTLE SLOUGH	3213D	Dissolved Oxygen, Nutrients (chla), Coliforms (fecal & total)		High	Group 1	2002
LAKE OKEECHOBEE	S-135 (Henry Creek)	3213B	Dissolved Oxygen, Nutrients (chla), Coliforms (fecal & total)		High	Group 1	2002
LITTLE MANATEE RIVER	SOUTH FORK LITTLE MANATEE RIVER	1790	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 2	2008
LITTLE MANATEE RIVER	LITTLE MANATEE RIVER	1742A	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 2	2008
MANATEE RIVER	CEDAR CREEK	1926	Dissolved Oxygen, Coliforms, Nutrients, Total Suspended Solids		Low	Group 2	2008
MANATEE RIVER	RATTLESNAKE SLOUGH	1923	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 2	2008
MANATEE RIVER	BRADEN RIVER ABOVE WARD LAKE	1914	Dissolved Oxygen, Coliforms, Nutrients, Total Suspended Solids		Low	Group 2	2008
MANATEE RIVER	GAP CREEK	1899	Coliforms		High	Group 2	2003
MANATEE RIVER	UNNAMED STREAM (Nonsense Creek)	1913	Dissolved Oxygen, Coliforms, Total Suspended Solids		Low	Group 2	2008

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
MANATEE RIVER	WILLIAMS CREEK	1901	Coliforms		High	Group 2	2003
MANATEE RIVER	MILL CREEK	1872	Coliforms		High	Group 2	2003
MANATEE RIVER	WARES CREEK	1848C	Biochemical Oxygen Demand, Coliforms		High	Group 2	2003
MANATEE RIVER	GILLY CREEK	1840	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 2	2008
MANATEE RIVER	GAMBLE CREEK	1819	Dissolved Oxygen, Coliforms, Turbidity, Nutrients		High	Group 2	2003
MYAKKA RIVER	MYAKKA RIVER	1991C	Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2001, 2011 (mercury)
MYAKKA RIVER	UNNAMED CREEK	2038	Nutrients		High	Group 3	2001
MYAKKA RIVER	DEER PRAIRIE SLOUGH	2014	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand		Low	Group 3	2001
MYAKKA RIVER	BIG SLOUGH CANAL	1976	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 3	2001
MYAKKA RIVER	MYAKKA RIVER	1981B	Dissolved Oxygen, Coliforms, Nutrients, Total Suspended Solids		Low	Group 3	2001
MYAKKA RIVER	MUD LAKE SLOUGH	1958	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Total Suspended Solids		High	Group 3	2001
MYAKKA RIVER	UPPER LAKE MYAKKA	1981C	Biology	Listing based on biological sampling.	Low	Group 3	2001
MYAKKA RIVER	OWEN CREEK	1933	Dissolved Oxygen, Coliforms, Turbidity, Nutrients, Total Suspended Solids		High	Group 3	2001
NASSAU RIVER	LITTLE MILL CREEK	2157	Turbidity, Coliforms, Nutrients		Low	Group 4	2010
NASSAU RIVER	NASSAU RIVER	2148B	Dissolved Oxygen, Nutrients, Turbidity,		High	Group 4	2005

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			Total Suspended Solids, Coliforms				
NASSAU RIVER	ALLIGATOR CREEK	2153	Dissolved Oxygen, Nutrients		High	Group 4	2005
NASSAU RIVER	SOUTH AMELIA RIVER	2149	Nutrients		Low	Group 4	2010
NASSAU RIVER	MILLS CREEK	2120A	Nutrients, Coliforms		High	Group 4	2005
NASSAU RIVER	PLUMMER CREEK	2130	Nutrients, Turbidity, Dissolved Oxygen, Coliforms		High	Group 4	2005
NEW RIVER	CROOKED RIVER	1251	Dissolved Oxygen, Coliforms, Mercury (Based on Fish Consumption Advisory)		Low	Group 2	2008, 2011 (mercury)
NEW RIVER	WHISKEY GEORGE CREEK	1236	Dissolved Oxygen, Coliforms		Low	Group 2	2008
OCHLOCKONEE RIVER	OCHLOCKONEE RIVER	1297A	Coliforms (fecal), Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
OCHLOCKONEE RIVER	OCHLOCKONEE BAY	1248A	Coliforms (fecal)		Low	Group 1	
OCHLOCKONEE RIVER	OCHLOCKONEE BAY	1248B	Coliforms (fecal)		Low	Group 1	
OCHLOCKONEE RIVER	OCHLOCKONEE BAY GULF	8025	Coliforms (fecal)		Low	Group 1	
OCHLOCKONEE RIVER	DIRECT RUNOFF TO BAY	1176	Coliforms (fecal)		Low	Group 1	
OCHLOCKONEE RIVER	DIRECT RUNOFF TO GULF	1239	Coliforms (fecal)		Low	Group 1	
OCHLOCKONEE RIVER	DICKERSON BAY	1223	Coliforms (fecal)		Low	Group 1	
OCHLOCKONEE RIVER	CHAIRES CREEK	1255	Coliforms (fecal)		Low	Group 1	
OCHLOCKONEE RIVER	BLACK CREEK	1024	Coliforms (fecal & total)		Low	Group 1	2007

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
OCHLOCKONEE RIVER	OCHLOCKONEE RIVER	1297B	Coliforms (fecal & total), Nutrients, Turbidity		Low	Group 1	2007
OCHLOCKONEE RIVER	MEGGINNIS ARM RUN	809	Nutrients, Turbidity, Total Suspended Solids, Biochemical Oxygen Demand, Dissolved Oxygen		Low	Group 1	2007
OCHLOCKONEE RIVER	HARBINWOOD ESTATES DN	746	Nutrients, Turbidity, Total Suspended Solids, Biochemical Oxygen Demand		High	Group 1	2002
OCHLOCKONEE RIVER	OCHLOCKONEE RIVER	1297E	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
OCHLOCKONEE RIVER	LITTLE RIVER	424	Coliforms (fecal & total), Nutrients		Low	Group 1	2007
OCHLOCKONEE RIVER	JUNIPER CREEK	682	Coliforms (fecal & total), Nutrients, Turbidity		Low	Group 1	2007
OCHLOCKONEE RIVER	LAKE IAMONIA OUTLET	442	Coliforms (fecal & total), Dissolved Oxygen		High	Group 1	2002
OCHLOCKONEE RIVER	OCHLOCKONEE RIVER	1297F	Coliforms (fecal & total), Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2007, 2011 (mercury)
OCHLOCKONEE RIVER	SWAMP CREEK	427	Coliforms (fecal & total), Nutrients, Turbidity, Total Suspended Solids		Low	Group 1	2007
OCHLOCKONEE RIVER	LAKE JACKSON	582B	Dissolved Oxygen, Nutrients (TSI)		Medium	Group 1	2007
OCHLOCKONEE RIVER	MASHES ISLAND	8025B	Bacteria (beach advisory)		High	Group 1	2007
OCHLOCKONEE RIVER	MOORE LAKE	889	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
OCHLOCKONEE RIVER	TALLAVANA LAKE	540A	Nutrients (TSI)		Medium	Group 1	2007
OCHLOCKONEE RIVER	TELOGIA CREEK	1300	Coliforms (fecal & total)		Medium	Group 1	2007

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OKLAWAHA RIVER	LITTLE CREEK	2883	Dissolved Oxygen		Low	Group 1	
OKLAWAHA RIVER	BLACK LAKE OUTLET	2875	Un-ionized Ammonia		Low	Group 1	
OKLAWAHA RIVER	EXTENSION DITCH (Dora Canal)	2831A	Dissolved Oxygen, Nutrients (chla)		Low	Group 1	2002
OKLAWAHA RIVER	PALATLAHAHA RIVER	2839	Dissolved Oxygen, Nutrients (chla)		Low/ Medium	Group 1	2002 (DO), 2007
OKLAWAHA RIVER	LAKE WILSON	2839C	Dissolved Oxygen		Low	Group 1	
OKLAWAHA RIVER	LAKE SUSAN	2839Y	Dissolved Oxygen		Low	Group 1	
OKLAWAHA RIVER	LAKE APOPKA	2835D	Nutrients (TSI), Pesticides (fish tissue)		High/ Medium	Group 1	2002 (nutrients), 2007
OKLAWAHA RIVER	GOURD NECK SPRING	2835C	Nutrients (chla)		High	Group 1	2002
OKLAWAHA RIVER	APOPKA MARSH	2856	Dissolved Oxygen, Nutrients, Turbidity, Un-ionized Ammonia		High	Group 1	2002
OKLAWAHA RIVER	LITTLE LAKE HARRIS	2838B	Nutrients (TSI), Un-ionized Ammonia		High	Group 1	2002
OKLAWAHA RIVER	LAKE APOPKA OUTLET	2835A	Dissolved Oxygen, Nutrients (chla), Biochemical Oxygen Demand		High	Group 1	2002
OKLAWAHA RIVER	LAKE CARLTON	2837B	Nutrients (TSI), Dissolved Oxygen, Un-ionized Ammonia		High	Group 1	2002
OKLAWAHA RIVER	LAKE BEAUCLAIR	2834C	Nutrients (TSI)		High	Group 1	2003
OKLAWAHA RIVER	LAKE HARRIS	2838A	Nutrients (TSI), Lead, Selenium		Low	Group 1	2002
OKLAWAHA RIVER	BLUE SPRINGS	2838C	Nutrients, Cadmium		Low	Group 1	2002
OKLAWAHA RIVER	HOLIDAY SPRINGS	2838D	Nutrients		Low	Group 1	2002

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
OKLAWAHA RIVER	HELENA RUN	2832	Dissolved Oxygen, Nutrients (chla)		Low	Group 1	2002
OKLAWAHA RIVER	LAKE DENHAM	2832A	Nutrients (TSI)		Medium	Group 1	2007
OKLAWAHA RIVER	LAKE DORA	2831B	Nutrients (TSI), Silver, Un-ionized Ammonia		High	Group 1	2003
OKLAWAHA RIVER	LAKE LORRAINE	2829A	Nutrients (TSI)		Medium	Group 1	2007
OKLAWAHA RIVER	LAKE GRIFFIN	2814A	Nutrients (TSI & historic chla), Un-ionized Ammonia		High	Group 1	2003
OKLAWAHA RIVER	LAKE EUSTIS	2817B	Nutrients (TSI), Lead, Un-ionized Ammonia		Low	Group 1	2002
OKLAWAHA RIVER	TROUT LAKE	2819A	Nutrients (TSI)		Low	Group 1	2002
OKLAWAHA RIVER	HAYNES CREEK REACH	2817A	Dissolved Oxygen, Coliforms (fecal & total), Nutrients (chla), Biochemical Oxygen Demand		Low	Group 1	2002
OKLAWAHA RIVER	DEAD RIVER	2817C	Nutrients (chla)		Medium	Group 1	2007
OKLAWAHA RIVER	NONCONTRIBUTING AREA	2809	Nutrients, Turbidity		Low	Group 1	2002
OKLAWAHA RIVER	IRRIGATED FARM (Knight Farm)	2811	Dissolved Oxygen, Nutrients, Turbidity		Low	Group 1	2002
OKLAWAHA RIVER	LAKE YALE CANAL (Yale-Griffin Canal)	2807	Dissolved Oxygen, Lead, Nutrients (TSI)		Low/ Medium	Group 1	2002, 2007 (nutrients)
OKLAWAHA RIVER	LAKE YALE	2807A	Nutrients (TSI)		Medium	Group 1	2007
OKLAWAHA RIVER	OKLAWAHA RIVER ABOVE DAISY CREEK	2740D	Dissolved Oxygen, Coliforms (fecal & total), Nutrients (chla), Biochemical Oxygen Demand, Iron, Mercury (Based on Fish Consumption Advisory)		Low/ Medium	Group 1	2002, 2007 (iron), 2011 (mercury)

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
OKLAWAHA RIVER	LAKE WEIR OUTLET	2790	Nutrients (TSI)		Medium	Group 1	2007
OKLAWAHA RIVER	LAKE WEIR	2790A	Nutrients (TSI), Copper		Medium	Group 1	2007
OKLAWAHA RIVER	LAKE BRYANT	2782C	Nutrients (TSI)		Medium	Group 1	2007
OKLAWAHA RIVER	SILVER RIVER	2772	Dissolved Oxygen		Low	Group 1	
OKLAWAHA RIVER	DAISY CREEK	2769	Dissolved Oxygen, Nutrients, Turbidity, Coliforms (fecal & total), Iron		High	Group 1	2002
OKLAWAHA RIVER	OKLAWAHA RIVER ABOVE LAKE OCKLAWAHA	2740C	Dissolved Oxygen, Nutrients, Lead, Cadmium, Selenium, Silver, Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2002, 2011 (mercury)
OKLAWAHA RIVER	ORANGE LAKE	2749A	Dissolved Oxygen, Nutrients (TSI), Lead		Low	Group 1	2002
OKLAWAHA RIVER	ORANGE LAKE REACH	2749	Dissolved Oxygen		Low	Group 1	
OKLAWAHA RIVER	LAKE OCKLAWAHA	2740B	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
OKLAWAHA RIVER	OKLAWAHA RIVER ABOVE ST JOHNS RIVER	2740A	Dissolved Oxygen, Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2002, 2011 (mercury)
OKLAWAHA RIVER	OKLAWAHA RIVER/SUNNYHILL	2740F	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand, Coliforms		Low	Group 1	2002
OKLAWAHA RIVER	CROSS CREEK	2754	Dissolved Oxygen, Nutrients (chla), Total Suspended Solids, Biochemical Oxygen Demand		High	Group 1	2002
OKLAWAHA RIVER	LOCHLOOSA LAKE	2738A	Nutrients (TSI & historic chla)		High	Group 1	2002

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
OKLAWAHA RIVER	WAUBERG (not WALBERG) LAKE OUTLET	2741	Nutrients (TSI)		High	Group 1	2002
OKLAWAHA RIVER	DEEP CREEK RODMAN RESERVOIR	2730	Dissolved Oxygen		Low	Group 1	
OKLAWAHA RIVER	ALACHUA SINK	2720A	Nutrients (TSI)		High	Group 1	2002
OKLAWAHA RIVER	KANAPAHA LAKE	2717	Nutrients		High	Group 1	2002
OKLAWAHA RIVER	TUMBLING CREEK	2718A	Dissolved Oxygen, Coliforms (fecal & total), Biochemical Oxygen Demand		Low	Group 1	2002
OKLAWAHA RIVER	BEVENS CREEK (Tumbling Creek South)	2718C	Nutrients (chla)		Medium	Group 1	2007
OKLAWAHA RIVER	REDWATER LAKE	2713B	Nutrients (TSI)		Medium	Group 1	2007
OKLAWAHA RIVER	NEWNANS LAKE OUTLET	2705	Nutrients (TSI)		Medium	Group 1	2007
OKLAWAHA RIVER	NEWNANS LAKE	2705B	Nutrients (TSI), Un-ionized Ammonia		High	Group 1	2002
OKLAWAHA RIVER	SWEETWATER BRANCH	2711	Coliforms (fecal & total), Nutrients		Low	Group 1	2002
OKLAWAHA RIVER	HOGTOWN CREEK	2698	Coliforms (fecal & total), Nutrients, Dissolved Oxygen		Low/ Medium	Group 1	2002, 2007 (DO)
OKLAWAHA RIVER	LITTLE HATCHET CREEK	2695	Dissolved Oxygen		Medium	Group 1	2007
OKLAWAHA RIVER	HATCHET CREEK	2688	Coliforms (fecal & total), Iron, Dissolved Oxygen		Low	Group 1	2002
OKLAWAHA RIVER	BIG CREEK REACH	1406	Dissolved Oxygen		Low	Group 1	
PEACE RIVER	MYRTLE SLOUGH	2054	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand, Coliforms		Low	Group 3	2008
PEACE RIVER	PEACE RIVER LOWER ESTUARY	2056A	Dissolved Oxygen, Nutrients, Mercury (Based on Fish		Low	Group 3	2008, 2011 (mercury)

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			Consumption Advisory)				
PEACE RIVER	PEACE RIVER MID ESTUARY	2056B	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 3	2008, 2011 (mercury)
PEACE RIVER	PRAIRIE CREEK	1962	Dissolved Oxygen, Nutrients, Turbidity		Low	Group 3	2008
PEACE RIVER	HAWTHORNE CREEK	1997	Coliforms, Nutrients		Low	Group 3	2008
PEACE RIVER	MYRTLE SLOUGH	1995	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand, Coliforms		Low	Group 3	2008
PEACE RIVER	PEACE RIVER ABOVE JOSHUA CREEK	1623C	Dissolved Oxygen, Nutrients, Total Suspended Solids, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2004, 2011 (mercury)
PEACE RIVER	HORSE CREEK ABOVE PEACE RIVER	1787A	Dissolved Oxygen, Coliforms, Nutrients, Biochemical Oxygen Demand		Low	Group 3	2008
PEACE RIVER	BRANDY BRANCH	1939	Nutrients		High	Group 3	2004
PEACE RIVER	BEAR BRANCH	1948	Dissolved Oxygen, Nutrients		Low	Group 3	2008
PEACE RIVER	C WILL OUTFALL AT CONV	1939A	Dissolved Oxygen, Nutrients		High	Group 3	2004
PEACE RIVER	LIMESTONE CREEK	1921	Dissolved Oxygen, Coliforms, Nutrients, Total Suspended Solids		High	Group 3	2004
PEACE RIVER	PEACE RIVER ABOVE CHARLIE CREEK	1623D	Coliforms, Nutrients, Turbidity, Total Suspended Solids, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2004, 2011 (mercury)
PEACE RIVER	PEACE RIVER ABOVE OAK CREEK	1623E	Nutrients, Turbidity, Total Suspended Solids, Mercury (Based on Fish Consumption		High	Group 3	2004, 2011 (mercury)

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			Advisory)				
PEACE RIVER	ALLIGATOR BRANCH	1871	Dissolved Oxygen, Coliforms, Nutrients		High	Group 3	2004
PEACE RIVER	THOMPSON BRANCH	1844	Coliforms, Nutrients		Low	Group 3	2008
PEACE RIVER	LITTLE CHARLIE CREEK	1774	Coliforms, Nutrients		Low	Group 3	2008
PEACE RIVER	PAYNE CREEK	1757A	Dissolved Oxygen, Nutrients		Low	Group 3	2008
PEACE RIVER	PAYNE CREEK	1757B	Coliforms, Nutrients		Low	Group 3	2008
PEACE RIVER	PEACE RIVER ABOVE PAYNE CREEK	1623H	Dissolved Oxygen, Coliforms, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2004, 2011 (mercury)
PEACE RIVER	WHIDDEN CREEK	1751	Nutrients, Turbidity, Total Suspended Solids, Dissolved Oxygen		High	Group 3	2004
PEACE RIVER	PEACE RIVER ABOVE BOWLEGS CREEK	1623J	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Total Suspended Solids, Biochemical Oxygen Demand, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2004, 2011 (mercury)
PEACE RIVER	PEACE CREEK TRIBUTARY CANAL	1613	Dissolved Oxygen, Coliforms, Nutrients, Turbidity		High	Group 3	2004
PEACE RIVER	WEST WALES DRAINAGE CANAL	1626	Dissolved Oxygen, Nutrients, Turbidity		High	Group 3	2004
PEACE RIVER	LAKE EFFIE OUTLET	1617	Nutrients		High	Group 3	2004
PEACE RIVER	SADDLE CREEK BELOW LAKE HANCOCK	1623K	Dissolved Oxygen, Coliforms, Un-ionized Ammonia, Nutrients, Turbidity, Total Suspended Solids		High	Group 3	2004
PEACE RIVER	LAKE HANCOCK	1623L	Dissolved Oxygen, Un-ionized Ammonia, Nutrients		High	Group 3	2004

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
PEACE RIVER	WAHNETA FARMS DRAIN CANAL	1580	Dissolved Oxygen, Coliforms, Nutrients, Turbidity		High	Group 3	2004
PEACE RIVER	BANANA LAKE	1549B	Dissolved Oxygen, Un-ionized Ammonia, Fluoride, Nutrients		High	Group 3	2004
PEACE RIVER	LAKE ELOISE	1521B	Nutrients		High	Group 3	2004
PEACE RIVER	LAKE LULU RUN	1521C		Listing based on NPS survey.	High	Group 3	2004
PEACE RIVER	LAKE LULU OUTLET	1521	Dissolved Oxygen, Nutrients		High	Group 3	2004
PEACE RIVER	LAKE SHIPP	1521D	Dissolved Oxygen, Nutrients		High	Group 3	2004
PEACE RIVER	BANANA LAKE CANAL	1549A	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Total Suspended Solids		High	Group 3	2004
PEACE RIVER	LAKE MAY	1521E	Nutrients		High	Group 3	2004
PEACE RIVER	CRYSTAL LAKE	1497A	Dissolved Oxygen, Un-ionized Ammonia, Nutrients		Low	Group 3	2008
PEACE RIVER	LAKE LENA RUN	1501A	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Total Suspended Solids		High	Group 3	2004
PEACE RIVER	PEACE CREEK DRAIN CANAL	1539	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Total Suspended Solids, Biochemical Oxygen Demand, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2004, 2011 (mercury)
PEACE RIVER	LAKE MIRROR	1521G	Nutrients		High	Group 3	2004
PEACE RIVER	LAKE CANNON	1521H	Dissolved Oxygen, Coliforms, Nutrients		High	Group 3	2004
PEACE RIVER	LAKE BONNY	1497E	Nutrients		High	Group 3	2004
PEACE RIVER	LAKE SMART	1488A	Dissolved Oxygen, Un-ionized Ammonia,		High	Group 3	2004

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			Nutrients				
PEACE RIVER	SADDLE CREEK	1497	Dissolved Oxygen, Coliforms, Nutrients		High	Group 3	2004
PEACE RIVER	LAKE HOWARD	1521F	Nutrients		High	Group 3	2004
PEACE RIVER	LAKE JESSIE	1521K	Nutrients		High	Group 3	2004
PEACE RIVER	LAKE PARKER	1497B	Nutrients		High	Group 3	2004
PEACE RIVER	LAKE LENA	1501	Nutrients		High	Group 3	2004
PEACE RIVER	LAKE HAINES	1488C	Dissolved Oxygen, Coliforms, Nutrients		High	Group 3	2004
PEACE RIVER	LAKE ARIANNA	1501B	Nutrients		Low	Group 3	2008
PEACE RIVER	LAKE TENOROC	1497C	Dissolved Oxygen		Low	Group 3	2008
PEACE RIVER	LAKE ALFRED	1488D	Dissolved Oxygen, Nutrients		Low	Group 3	2008
PENSACOLA BAY	BAYOU GARCON	987	Dissolved Oxygen, Color		High	Group 4	2006
PENSACOLA BAY	PENSACOLA BAY	548E	Copper, Lead, Biological Oxygen Demand, Nutrients, Turbidity, Total Suspended Solids		High	Group 4	2006
PENSACOLA BAY	JONES CREEK	846A	Coliforms, Dissolved Oxygen, Nutrients, Turbidity		Low	Group 4	2011
PENSACOLA BAY	BAYOU CHICO	846	Coliforms, Dissolved Oxygen, Nutrients		High	Group 4	2006
PENSACOLA BAY	PENSACOLA BAY	548C	Coliforms		High	Group 4	2006
PENSACOLA BAY	JACKSON CREEK	846B	Dissolved Oxygen, Coliforms, Nutrients, Total Suspended Solids, Turbidity		Low	Group 4	2011
PENSACOLA BAY	BAYOU GRANDE	740	Coliforms, Dissolved Oxygen		High	Group 4	2006
PENSACOLA BAY	EAST RIVER BAY	701	Coliforms, Turbidity		Low	Group 4	2011
PENSACOLA BAY	TEXAR BAYOU	738	Coliforms		Low	Group 4	2011
PENSACOLA BAY	ESCAMBIA BAY (S)	548B	Dissolved Oxygen, Coliforms, Nutrients,		High	Group 4	2006

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			Total Suspended Solids, Turbidity				
PENSACOLA BAY	DIRECT RUNOFF TO BAY (Escambia Bay, Mulatto Bayou, Indian Bayou)	639		Listing based on NPS survey.	High	Group 4	2006
PENSACOLA BAY	CARPENTER CREEK	676	Coliforms		Low	Group 4	2011
PENSACOLA BAY	TROUT BAYOU	694	Coliforms, Dissolved Oxygen		Low	Group 4	2011
PENSACOLA BAY	INDIAN BAYOU	649	Coliforms, Dissolved Oxygen		Low	Group 4	2011
PENSACOLA BAY	DIRECT RUNOFF TO BAY (Mulatto Bayou, Escambia Bay)	666		Listing based on NPS survey.	High	Group 4	2006
PENSACOLA BAY	ESCAMBIA BAY	548A	Dissolved Oxygen, Coliforms, Nutrients, Total Suspended Solids, Turbidity		High	Group 4	2006
PENSACOLA BAY	MULATTO BAYOU	539	Coliforms, Dissolved Oxygen, Nutrients		Low	Group 4	2011
PENSACOLA BAY	JUDGES BAYOU	493	Dissolved Oxygen, Nutrients		Low	Group 4	2011
PENSACOLA BAY	PACE MILL CREEK (Escambia River)	420	Coliforms, Dissolved Oxygen, Total Suspended Solids, Turbidity		Low	Group 4	2011
PERDIDO BAY	DIRECT RUNOFF TO BAY (Big Lagoon)	991	Dissolved Oxygen		Low	Group 5	2011
PERDIDO BAY	UNNAMED STREAM (Weekly Bayou Creek)	935	Dissolved Oxygen		Low	Group 5	2011
PERDIDO BAY	PERDIDO BAY	797	Dissolved Oxygen, Nutrients		Low	Group 5	2011
PERDIDO BAY	MARCUS CREEK	697	Coliforms		Low	Group 5	2011
PERDIDO BAY	DIRECT RUNOFF TO BAY (Tee Lake/Perdido Bay)	784		Listing based on non-point source qualitative assessment.	Low	Group 5	2011

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
PERDIDO BAY	UNNAMED BRANCH (Marcus Creek - East Arm)	725	Coliforms		Low	Group 5	2011
PERDIDO BAY	EIGHTMILE CREEK	624	Coliforms, Turbidity		Low	Group 5	2011
PERDIDO BAY	ELEVENMILE CREEK	489	Nutrients, Turbidity, Total Suspended Solids, Biochemical Oxygen Demand, Dissolved Oxygen, Coliforms, Un-ionized Ammonia		High	Group 5	2006
PERDIDO RIVER	PERDIDO RIVER	462A	Coliforms, Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 5	2011
PERDIDO RIVER	PERDIDO RIVER	462B	Coliforms, Mercury (Based on Fish Consumption Advisory)		Low	Group 5	2011
PERDIDO RIVER	PERDIDO RIVER	462C	Coliforms, Mercury (Based on Fish Consumption Advisory)		Low	Group 5	2011
PERDIDO RIVER	JACKS BRANCH	291	Coliforms, Dissolved Oxygen, Turbidity		Low	Group 5	2011
PERDIDO RIVER	BRUSHY CREEK	4	Coliforms, Dissolved Oxygen, Total Suspended Solids, Turbidity		Low	Group 5	2011
SANTA FE RIVER	BLUE CREEK	3682	Coliforms (fecal)		Low	Group 1	
SANTA FE RIVER	COW CREEK	3649	Dissolved Oxygen		Low	Group 1	
SANTA FE RIVER	ROCKY CREEK	3641	Dissolved Oxygen, Coliforms (fecal & total), Nutrients, Biochemical Oxygen Demand		Low	Group 1	2007
SANTA FE RIVER	LAKE ROWELL	3598B	Nutrients, Dissolved Oxygen		Low	Group 1	2007
SANTA FE RIVER	ALLIGATOR CREEK	3598C	Coliforms (fecal)		Low	Group 1	
SANTA FE RIVER	HAMPTON LAKE	3635A	Dissolved Oxygen		Low	Group 1	2007

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
SANTA FE RIVER	SANTA FE RIVER	3605A	Nutrients (historic chla), Mercury (Based on Fish Consumption Advisory)		Medium/Low	Group 1	2007, 2011 (mercury)
SANTA FE RIVER	SANTA FE RIVER	3605B	Dissolved Oxygen, Nutrients		Low	Group 1	2007
SANTA FE RIVER	SANTA FE RIVER	3605C	Dissolved Oxygen, Nutrients		Medium/Low	Group 1	2007
SANTA FE RIVER	SANTA FE RIVER	3605E	Dissolved Oxygen		Low	Group 1	
SANTA FE RIVER	ALTHO DRAINAGE	3605F	Dissolved Oxygen, Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2007, 2011 (mercury)
SANTA FE RIVER	FIVEMILE CREEK	3578	Dissolved Oxygen, Coliforms (fecal & total), Nutrients		Low	Group 1	2007
SANTA FE RIVER	LAKE BUTLER	3566	Nutrients (TSI)		Low	Group 1	
SANTA FE RIVER	ICHETUCKNEE SPRING	3519Z	Dissolved Oxygen, Nutrients		Low	Group 1	2007
SANTA FE RIVER	NEW RIVER	3506	Dissolved Oxygen, Coliforms (fecal)		Low	Group 1	2007
SANTA FE RIVER	OLUSTEE CREEK	3504A	Dissolved Oxygen		Low	Group 1	
SANTA FE RIVER	ALLIGATOR LAKE OUTLET	3516	Dissolved Oxygen, Nutrients (TSI)		Low	Group 1	2007
SANTA FE RIVER	ALLIGATOR LAKE	3516A	Dissolved Oxygen, Nutrients (TSI)		Low	Group 1	2007
SANTA FE RIVER	PRICE CREEK	3517	Dissolved Oxygen		Low	Group 1	
SANTA FE RIVER	CANNON CREEK	3520	Coliforms (fecal)		Medium	Group 1	2007
SANTA FE RIVER	PARENERS BRANCH	3626	Coliforms (fecal & total)		Medium	Group 1	2007
SARASOTA BAY	CORAL CREEK EAST BRANCH	2078B	Dissolved Oxygen, Nutrients, Lead, Cadmium, Copper, Zinc		Low	Group 3	2008
SARASOTA BAY	LEMON BAY	1983A	Dissolved Oxygen, Nutrients		Low	Group 3	2008
SARASOTA BAY	GOTTFRIED CREEK	2049	Dissolved Oxygen, Nutrients		High	Group 3	2004

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
SARASOTA BAY	FORKED CREEK	2039	Nutrients		High	Group 3	2004
SARASOTA BAY	DIRECT RUNOFF TO BAY (Alligator Creek)	2042	Nutrients		High	Group 3	2004
SARASOTA BAY	ALLIGATOR CREEK	2030	Nutrients		High	Group 3	2004
SARASOTA BAY	CURRY CREEK	2009A	Nutrients		High	Group 3	2004
SARASOTA BAY	NORTH CREEK	1984A	Nutrients		High	Group 3	2004
SARASOTA BAY	SOUTH CREEK	1982A	Nutrients		High	Group 3	2004
SARASOTA BAY	LITTLE SARASOTA BAY	1968E	Nutrients		High	Group 3	2004
SARASOTA BAY	CATFISH CREEK	1984	Nutrients		High	Group 3	2004
SARASOTA BAY	CLOWERS CREEK (Segment 24.1 CA)	1975A	Nutrients, Turbidity, Coliforms		High	Group 3	2004
SARASOTA BAY	ELLIGRAW BAYOU	1975	Nutrients, Dissolved Oxygen, Coliforms		High	Group 3	2004
SARASOTA BAY	CLARK LAKE/UNNAMED DITCH	1971	Nutrients		High	Group 3	2004
SARASOTA BAY	ROBERTS BAY	1968D	Nutrients		High	Group 3	2004
SARASOTA BAY	SARASOTA BAY	1968C	Nutrients		High	Group 3	2004
SARASOTA BAY	PHILIPPE CREEK	1947	Nutrients		High	Group 3	2004
SARASOTA BAY	MAIN A CANAL	1947A	Nutrients, Dissolved Oxygen, Coliforms		High	Group 3	2004
SARASOTA BAY	HUDSON BAYOU	1953	Nutrients		High	Group 3	2004
SARASOTA BAY	DIRECT RUNOFF TO BAY (Little Sarasota Bay)	1951	Nutrients		High	Group 3	2004
SARASOTA BAY	DIRECT RUNOFF TO BAY (Buttonwood Harbor/Sarasota Bay)	1916	Dissolved Oxygen		High	Group 3	2004
SARASOTA BAY	PHILIPPI CREEK	1937	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 3	2008

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
SARASOTA BAY	WHITAKER BAYOU	1936	Nutrients		High	Group 3	2004
SARASOTA BAY	DIRECT RUNOFF TO GULF (Whitaker Bayou, Big Sarasota Bay)	1931	Nutrients		High	Group 3	2004
SARASOTA BAY	SARASOTA BAY	1968B	Nutrients		High	Group 3	2004
SOUTHEAST FLORIDA COAST	FLORIDA BAY		Nutrients, Chlorides, Dissolved Oxygen		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	LONG SOUND	6005	Dissolved Oxygen		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	C-111	3303	Dissolved Oxygen, Mercury (Based on Fish Consumption Advisory)		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	C-113	3303A	Dissolved Oxygen, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	TRANSECT T3	3303C	Dissolved Oxygen		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	MILITARY CANAL	3304	Lead, Cadmium, Copper		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	AREA B TAMIAMI CANAL	3286B	Dissolved Oxygen, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	WCA3B	3278	Dissolved Oxygen, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2006, 2011 (mercury)
SOUTHEAST FLORIDA COAST	WCA3B S-333	3278A	Dissolved Oxygen, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	WCA3B MIAMI CANAL	3278B	Dissolved Oxygen, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	C-6/MIAMI RIVER	3288	Dissolved Oxygen, Coliforms		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	WAGNER CREEK	3288A	Dissolved Oxygen, Coliforms, Nutrients		High	Group 4	2005
SOUTHEAST FLORIDA COAST	C-7/LITTLE RIVER	3287	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	C-8/BISCAYNE CANAL	3285	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
SOUTHEAST FLORIDA COAST	SNAKE CREEK CANAL WEST	3284	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)
SOUTHEAST FLORIDA COAST	HOLLYWOOD CANAL	3282	Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	WCA3A CENTER SECTOR	3268	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	WCA3A US27 PERIMETER	3268A	Dissolved Oxygen, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	WCA3A NORTH SECTOR	3268B	Dissolved Oxygen, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	SOUTH NEW RIVER CANAL	3279	Dissolved Oxygen, Nutrients, Coliforms		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	NORTH NEW RIVER CANAL	3280C	Dissolved Oxygen, Nutrients, Coliforms		High	Group 4	2005
SOUTHEAST FLORIDA COAST	C-11 EAST	3281	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	NORTH NEW RIVER CANAL	3277	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	SOUTH NEW RIVER CANAL	3277A	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	EAST HOLLOWAY CANAL	3277B	Nutrients, Dissolved Oxygen, Total Suspended Solids, Biochemical Oxygen Demand, Coliforms		High	Group 4	2005
SOUTHEAST FLORIDA COAST	C-12	3276	Dissolved Oxygen, Coliforms		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	L-28 GAP	3269	Dissolved Oxygen		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	CONSERVATION AREA 2B	3272	Dissolved Oxygen, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	C-13 WEST/MIDDLE RIVER	3273	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	POMPANO CANAL	3271	Nutrients		High	Group 4	2005

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
SOUTHEAST FLORIDA COAST	POMPANO CANAL/CYPRESS	3270	Dissolved Oxygen, Coliforms		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	L-28 INTERCEPTOR	3266	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	WCA2A EAST SECTOR	3265	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	WCA2A S-10 PERIMETER	3265A	Dissolved Oxygen, Coliforms, Un-ionized Ammonia, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	WCA2A SOUTHWEST PERIMETER	3265B	Dissolved Oxygen, Coliforms, Nutrients, Cadmium		High	Group 5	2006
SOUTHEAST FLORIDA COAST	WCA2A L-35B PERIMETER	3265C	Dissolved Oxygen, Cadmium, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	WCA2A CENTER SECTOR	3265E	Dissolved Oxygen, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	E-1 CANAL	3264A	Dissolved Oxygen, Nutrients, Coliforms		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	E-4 CANAL	3264D	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	S-7	3263	Dissolved Oxygen, Mercury, Nutrients, Turbidity, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2006, 2011 (mercury)
SOUTHEAST FLORIDA COAST	HOLEY LANDS	3263A	Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	S-8	3260	Dissolved Oxygen, Mercury, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2006, 2011 (mercury)
SOUTHEAST FLORIDA COAST	L-3	3260A	Dissolved Oxygen, Nutrients		Low	Group 5	2011

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
SOUTHEAST FLORIDA COAST	HOLEY LANDS	3260B	Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	LAKE IDA	3262A	Dissolved Oxygen, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	E-3 CANAL	3262D	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	WCA1 CENTER SECTOR	3252	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	KNIGHTS FARM FIELD1	3252A	Nutrients		High	Group 5	2006
SOUTHEAST FLORIDA COAST	KNIGHTS FARM FIELD3	3252B	Nutrients		High	Group 5	2006
SOUTHEAST FLORIDA COAST	WCA1 NORTH SECTOR	3252C	Dissolved Oxygen, Coliforms, Nutrients, Total Suspended Solids		High	Group 5	2006
SOUTHEAST FLORIDA COAST	WCA1 WEST SECTOR	3252D	Dissolved Oxygen		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	WCA1 SOUTH SECTOR	3252E	Dissolved Oxygen, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	WCA1 EAST SECTOR	3252F	Dissolved Oxygen, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	HILLSBORO CANAL	3254	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	LAKE OSBORNE	3256A	Dissolved Oxygen, Coliforms		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	BOYTON CANAL	3256B	Dissolved Oxygen, Coliforms, Nutrients, Biochemical Oxygen Demand		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	CANAL E-4	3256D	Coliforms, Turbidity, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	NORTH NEW RIVER CANAL	3248	Dissolved Oxygen, Nutrients, Turbidity, Total Suspended		High	Group 5	2005, 2011 (mercury)

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			Solids, Mercury (Based on Fish Consumption Advisory)				
SOUTHEAST FLORIDA COAST	HILLSBORO CANAL	3248A	Dissolved Oxygen, Coliforms, Un-ionized Ammonia, Nutrients, Turbidity		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	S-3	3251	Dissolved Oxygen, Nutrients, Turbidity, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2005, 2011 (mercury)
SOUTHEAST FLORIDA COAST	SOUTH BAY	3253	Dissolved Oxygen, Un-ionized Ammonia, Nutrients		High	Group 5	2005
SOUTHEAST FLORIDA COAST	S-236	3250	Dissolved Oxygen, Un-ionized Ammonia, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	C-51	3245	Dissolved Oxygen, Coliforms, Nutrients, Iron		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	C-21	3246	Dissolved Oxygen, Nutrients		Low	Group 5	2011
SOUTHEAST FLORIDA COAST	WEST PALM BEACH CANAL	3238	Dissolved Oxygen, Coliforms, Un-ionized Ammonia, Nutrients, Turbidity, Total Suspended Solids, Mercury (Based on Fish Consumption Advisory)		High	Group 5	2005, 2011 (mercury)
SOUTHEAST FLORIDA COAST	M CANAL	3238E	Dissolved Oxygen, Nutrients		High	Group 5	2005
SOUTHEAST FLORIDA COAST	715 FARMS	3247	Dissolved Oxygen, Un-ionized Ammonia, Nutrients, Turbidity, Total Suspended Solids		High	Group 5	2005
SOUTHEAST FLORIDA COAST	C-17,M CANAL, L-30	3242	Dissolved Oxygen, Coliforms, Biochemical Oxygen Demand		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	EAST BEACH	3244	Dissolved Oxygen, Un-ionized Ammonia, Nutrients, Turbidity,		High	Group 5	2005

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			Total Suspended Solids				
SOUTHEAST FLORIDA COAST	C-18	3234	Dissolved Oxygen, Coliforms, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)
SOUTHEAST FLORIDA COAST	L-8	3233	Dissolved Oxygen, Nutrients, Turbidity, Mercury (Based on Fish Consumption Advisory)		High	Group 4	2005, 2011 (mercury)
SOUTHEAST FLORIDA COAST	NORTHWEST FORK LOXAHATCHEE	3226A	Dissolved Oxygen, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	SOUTHWEST FORK LOXAHATCHEE	3226C	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	INTERCOASTAL WATERWAY ABOVE FLAGLER BRIDGE	3226E	Dissolved Oxygen, Coliforms		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	INTERCOASTAL WATERWAY ABOVE POMPANO	3226F	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	INTERCOASTAL WATERWAY ABOVE DADE COUNTY	3226G	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	LOXAHATCHEE RIVER	3232		Listing based on NPS survey.	Low	Group 4	2010
SOUTHEAST FLORIDA COAST	KITCHINGS CREEK	3224B	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand, Coliforms		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	ST. LUCIE CANAL	3210A	Dissolved Oxygen, Nutrients		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	SOUTH FORK ST. LUCIE	3210B	Dissolved Oxygen, Nutrients, Total Suspended Solids, Biochemical Oxygen Demand, Coliforms		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	MANATEE POCKET	3208	Dissolved Oxygen, Nutrients		Low	Group 4	2010

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
SOUTHEAST FLORIDA COAST	BESSEY CREEK	3211	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand, Coliforms		High	Group 4	2005
SOUTHEAST FLORIDA COAST	C-24	3197	Dissolved Oxygen, Nutrients		High	Group 4	2005
SOUTHEAST FLORIDA COAST	NORTH ST. LUCIE	3194	Dissolved Oxygen, Coliforms, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 4	2005, 2011 (mercury)
SOUTHEAST FLORIDA COAST	TENMILE CREEK	3194A	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand, Coliforms		Low	Group 4	2010
SOUTHEAST FLORIDA COAST	ST. LUCIE	3194B	Nutrients		High	Group 4	2005
SOUTHEAST FLORIDA COAST	C-25 (Cowbone Creek)	3189	Dissolved Oxygen, Nutrients, Coliforms		High	Group 4	2005
ST ANDREWS BAY	PARKER BAYOU	1123	Dissolved Oxygen, Nutrients		Low	Group 3	2008
ST ANDREWS BAY	PITTS BAYOU	1128	Dissolved Oxygen, Nutrients		Low	Group 3	2008
ST ANDREWS BAY	PRETTY BAYOU	1141	Dissolved Oxygen, Nutrients		Low	Group 3	2008
ST ANDREWS BAY	ROBINSON BAYOU	1172	Dissolved Oxygen, Nutrients		Low	Group 3	2008
ST ANDREWS BAY	WARREN BAYOU		Dissolved Oxygen, Nutrients		Low	Group 3	2008
ST ANDREWS BAY	ST. JOE BAY	1267	Coliforms, Nutrients, Iron, Chlorides, Biological Oxygen Demand		High	Group 3	2004
ST ANDREWS BAY	DIRECT RUNOFF TO BAY (St. Andrews Bay & East Bay)	1170	Nutrients		Low	Group 3	2008
ST ANDREWS BAY	MASSALINA BAYOU	1144	Dissolved Oxygen, Nutrients		Low	Group 3	2008
ST ANDREWS BAY	WATSON BAYOU	1136	Dissolved Oxygen, Nutrients		Low	Group 3	2008
ST ANDREWS BAY	JOHNSON BAYOU	1131	Dissolved Oxygen, Nutrients		Low	Group 3	2008

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
ST ANDREWS BAY	CALLOWAY BAYOU	1110	Dissolved Oxygen, Nutrients		Low	Group 3	2008
ST ANDREWS BAY	BEATTY BAYOU	1088	Dissolved Oxygen, Nutrients		Low	Group 3	2008
ST ANDREWS BAY	DEER POINT LAKE	553A	Mercury (Based on Fish Consumption Advisory)		High	Group 3	2011
ST JOHNS RIVER, LOWER	LITTLE HAW CREEK	2630A	Dissolved Oxygen, Coliforms, Iron, Lead, Selenium		High	Group 2	2004
ST JOHNS RIVER, LOWER	HAW CREEK ABOVE CRESCENT LAKE	2622A	Nutrients, Iron, Coliforms, Lead, Selenium, Silver, Dissolved Oxygen, Biochemical Oxygen Demand		High	Group 2	2002
ST JOHNS RIVER, LOWER	ST JOHNS RIVER ABOVE DOCTOR LAKE	2213G	Iron, Nutrients		High	Group 2	2002
ST JOHNS RIVER, LOWER	ST JOHNS RIVER ABOVE PINEY POINT	2213F	Coliforms, Mercury, Nutrients		High	Group 2	2002 & 2011 (mercury)
ST JOHNS RIVER, LOWER	RICE CREEK UPSTREAM TO MILL	2567B	Coliforms, Nutrients, Iron, Lead		Low	Group 2	2004
ST JOHNS RIVER, LOWER	SIXTEENMILE CREEK	2589	Dissolved Oxygen, Nutrients		Low	Group 2	2008
ST JOHNS RIVER, LOWER	MILL BRANCH	2592	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Biochemical Oxygen Demand		High	Group 2	2002
ST JOHNS RIVER, LOWER	WEST RUN INTERCEPTER D	2569	Dissolved Oxygen, Iron, Silver, Nutrients, Turbidity, Total Suspended Solids, Biochemical Oxygen Demand		High	Group 2	2002
ST JOHNS RIVER, LOWER	DOG BRANCH	2578	Dissolved Oxygen, Nutrients, Turbidity, Lead		Low	Group 2	2008
ST JOHNS RIVER, LOWER	RICE CREEK DOWNSTREAM TO MILL	2567A	Dissolved Oxygen, Iron, Lead, Cadmium, Silver, Nutrients, Turbidity,		High	Group 2	2004

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			Total Suspended Solids, Biochemical Oxygen Demand				
ST JOHNS RIVER, LOWER	CRACKER BRANCH	2555	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand		High	Group 2	2002
ST JOHNS RIVER, LOWER	DEEP CREEK	2549	Dissolved Oxygen, Iron, Lead, Cadmium, Copper, Silver, Nutrients, Biochemical Oxygen Demand		High	Group 2	2002
ST JOHNS RIVER, LOWER	MOCCASIN BRANCH	2540	Dissolved Oxygen, Iron, Lead, Silver, Nutrients, Biochemical Oxygen Demand		High	Group 2	2002
ST JOHNS RIVER, LOWER	TOCOI CREEK	2492	Dissolved Oxygen, Nutrients		Low	Group 2	2008
ST JOHNS RIVER, LOWER	ST JOHNS RIVER ABOVE WARREN BRIDGE	2213E	Coliforms, Nutrients		High	Group 2	2002
ST JOHNS RIVER, LOWER	GREENE CREEK	2478	Coliforms, Nutrients, Biochemical Oxygen Demand		Low	Group 2	2008
ST JOHNS RIVER, LOWER	SIXMILE CREEK	2411	Dissolved Oxygen, Nutrients, Lead, Silver		Low	Group 2	2008
ST JOHNS RIVER, LOWER	PETERS CREEK	2444	Dissolved Oxygen, Iron, Lead, Cadmium, Silver, Nutrients, Coliforms		Low	Group 2	2008
ST JOHNS RIVER, LOWER	MILL CREEK	2460	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Iron		Low	Group 2	2008
ST JOHNS RIVER, LOWER	BLACK CREEK SOUTH FORK	2415C	Dissolved Oxygen, Coliforms, Nutrients, Iron, Lead, Silver		Low	Group 2	2008
ST JOHNS RIVER, LOWER	ST JOHNS RIVER ABOVE TROUT RIVER	2213D	Coliforms, Nutrients, Turbidity, Total Suspended Solids		High	Group 2	2002

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
ST JOHNS RIVER, LOWER	BLACK CREEK	2415B	Dissolved Oxygen, Iron, Lead, Cadmium, Silver		Low	Group 2	2008
ST JOHNS RIVER, LOWER	SWIMMING PEN CREEK	2410	Nutrients, Lead, Cadmium, Silver, Zinc, Total Suspended Solids		Low	Group 2	2008
ST JOHNS RIVER, LOWER	GROG BRANCH	2407	Dissolved Oxygen, Coliforms, Turbidity, Iron, Total Suspended Solids		Low	Group 2	2008
ST JOHNS RIVER, LOWER	LITTLE BLACK CREEK	2368	Dissolved Oxygen, Coliforms, Iron		Low	Group 2	2008
ST JOHNS RIVER, LOWER	DOCTORS LAKE	2389	Dissolved Oxygen, Coliforms, Nutrients, Selenium, Cadmium, Lead, Silver		Low	Group 2	2008
ST JOHNS RIVER, LOWER	DURBIN CREEK	2365	Dissolved Oxygen, Selenium, Nutrients, Coliforms		High	Group 2	2004
ST JOHNS RIVER, LOWER	JULINGTON CREEK	2351	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Total Suspended Solids		Low	Group 2	2008
ST JOHNS RIVER, LOWER	BIG DAVIS CREEK	2356	Dissolved Oxygen, Nutrients, Selenium		Low	Group 2	2008
ST JOHNS RIVER, LOWER	GOODBYS CREEK	2326	Nutrients, Turbidity, Total Suspended Solids, Biochemical Oxygen Demand, Coliforms		High	Group 2	2004
ST JOHNS RIVER, LOWER	FISHING CREEK	2324	Dissolved Oxygen, Copper, Nutrients, Turbidity, Total Suspended Solids		High	Group 2	2004
ST JOHNS RIVER, LOWER	BUTCHER PEN CREEK	2322	Coliforms, Copper, Nutrients, Turbidity, Total Suspended Solids, Dissolved Oxygen		High	Group 2	2004
ST JOHNS RIVER, LOWER	WILLIAMSON CREEK	2316	Dissolved Oxygen, Coliforms		High	Group 2	2004
ST JOHNS RIVER, LOWER	INTERCOASTAL WATERWAY	2205C	Dissolved Oxygen, Coliforms		Low	Group 2	2008

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
ST JOHNS RIVER, LOWER	POTTSBURG CREEK	2265B	Coliforms, Nutrients, Copper, Turbidity		Low	Group 2	2008
ST JOHNS RIVER, LOWER	WILLS BRANCH	2282	Copper, Nutrients, Turbidity, Total Suspended Solids, Dissolved Oxygen, Coliforms		High	Group 2	2004
ST JOHNS RIVER, LOWER	CEDAR RIVER	2262	Dissolved Oxygen, Coliforms, Nutrients, Turbidity, Lead, Zinc, Copper		High	Group 2	2004
ST JOHNS RIVER, LOWER	MCCOY CREEK	2262A	Lead, Copper, Zinc, Nutrients, Total Suspended Solids		High	Group 2	2004
ST JOHNS RIVER, LOWER	ARLINGTON RIVER	2265A	Nutrients, Lead, Copper		Low	Group 2	2008
ST JOHNS RIVER, LOWER	HOGAN CREEK	2252	Dissolved Oxygen, Coliforms		High	Group 2	2004
ST JOHNS RIVER, LOWER	STRAWBERRY CREEK	2239	Dissolved Oxygen, Coliforms, Nutrients, Copper		Low	Group 2	2008
ST JOHNS RIVER, LOWER	MONCRIEF CREEK	2228	Coliforms, Iron, Copper, Nutrients		High	Group 2	2004
ST JOHNS RIVER, LOWER	RIBAUT RIVER	2224	Coliforms, Lead		High	Group 2	2004
ST JOHNS RIVER, LOWER	ST JOHNS RIVER ABOVE INTERCOASTAL WATERWAY	2213B	Coliforms, Turbidity, Total Suspended Solids		High	Group 2	2002
ST JOHNS RIVER, LOWER	ST JOHNS RIVER ABOVE DAMES PT	2213C	Nutrients, Turbidity, Total Suspended Solids		High	Group 2	2002
ST JOHNS RIVER, LOWER	ST JOHNS RIVER ABOVE TOCOI	2213K	Lead, Copper, Silver, Nutrients		High	Group 2	2002
ST JOHNS RIVER, LOWER	ST JOHNS RIVER ABOVE FEDERAL PT	2213L	Lead, Cadmium, Copper, Silver, Nutrients		High	Group 2	2002
ST JOHNS RIVER, LOWER	ORTEGA RIVER	2213P	Nutrients, Coliforms, Lead, Copper, Total Suspended Solids, Dissolved Oxygen		Low	Group 2	2008

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
ST JOHNS RIVER, LOWER	ST JOHNS RIVER ABOVE MOUTH	2213A	Fluoride, Total Suspended Solids		Low	Group 2	2008
ST JOHNS RIVER, LOWER	TROUT RIVER	2203	Dissolved Oxygen, Coliforms, Iron		Low	Group 2	2008
ST JOHNS RIVER, LOWER	TROUT RIVER	2203A	Nutrients, Coliforms, Cadmium		Low	Group 2	2008
ST JOHNS RIVER, LOWER	CEDAR POINT CREEK	2205B	Nutrients, Iron		Low	Group 2	2008
ST JOHNS RIVER, LOWER	LITTLE TROUT RIVER	2206	Nutrients, Total Suspended Solids		High	Group 2	2004
ST JOHNS RIVER, UPPER	FORT DRUM CREEK	3154	Dissolved Oxygen, Coliforms, Nutrients, Lead		Low	Group 3	2008
ST JOHNS RIVER, UPPER	DRAINED FARMLAND	3140	Dissolved Oxygen, Nutrients, Turbidity		Low	Group 3	2008
ST JOHNS RIVER, UPPER	LAKE HELEN BLAZES	2893Q	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2002 (nutrients), 2004, 2011 (mercury)
ST JOHNS RIVER, UPPER	JANE GREEN CREEK	3084	Dissolved Oxygen, Nutrients, Iron, Lead		Low	Group 3	2008
ST JOHNS RIVER, UPPER	SAWGRASS LAKE	28931	Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 3	2008, 2011 (mercury)
ST JOHNS RIVER, UPPER	ST JOHNS RIVER ABOVE LAKE WASHINGTON	2893P	Dissolved Oxygen, Iron, Lead, Nutrients, Turbidity, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2002 (nutrients), 2004, 2011 (mercury)
ST JOHNS RIVER, UPPER	ST JOHNS RIVER ABOVE SAWGRASS LAKE	2893X	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2002 (nutrients), 2004, 2011 (mercury)

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
ST JOHNS RIVER, UPPER	CRABGRASS CREEK	3073	Dissolved Oxygen, Coliforms, Nutrients, Iron, Lead		Low	Group 3	2008
ST JOHNS RIVER, UPPER	WOLF CREEK	3075	Dissolved Oxygen, Nutrients, Coliforms, Cadmium, Iron, Lead		Low	Group 3	2008
ST JOHNS RIVER, UPPER	ST JOHNS RIVER ABOVE LAKE WINDER	2893N	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2002 (nutrients), 2004, 2011 (mercury)
ST JOHNS RIVER, UPPER	ST JOHNS RIVER ABOVE LAKE POINSETT	2893L	Dissolved Oxygen, Nutrients, Turbidity, Mercury (Based on Fish Consumption Advisory)		High	Group 3	2002 (nutrients), 2004, 2011 (mercury)
ST JOHNS RIVER, UPPER	LAKE POINSETT	2893K	Dissolved Oxygen, Mercury (Based on Fish Consumption Advisory)		Low	Group 3	2008, 2011 (mercury)
ST JOHNS RIVER, UPPER	LONG BRANCH	3030	Dissolved Oxygen, Coliforms, Iron, Nutrients, Biochemical Oxygen Demand, Turbidity		High	Group 3	2002 (nutrients), 2004, 2011 (mercury)
ST JOHNS RIVER, UPPER	ST JOHNS RIVER ABOVE PUZZLE LAKE	2893I	Dissolved Oxygen, Coliforms, Lead, Nutrients, Biochemical Oxygen Demand, Mercury (Based on Fish Consumption Advisory)		Low	Group 3	2008, 2011 (mercury)
ST JOHNS RIVER, UPPER	LITTLE WEKIVA CANAL	3004	Dissolved Oxygen, Coliforms, Nutrients, Biochemical Oxygen Demand		Low	Group 3	2008
ST JOHNS RIVER, UPPER	LITTLE ECONLOCKHATCHEE	3001	Dissolved Oxygen, Coliforms, Nutrients, Biochemical Oxygen Demand		Low	Group 3	2008
ST JOHNS RIVER, UPPER	CRANE STRAND DRAIN	3014	Dissolved Oxygen, Nutrients, Biochemical Oxygen Demand		High	Group 3	2004
ST JOHNS RIVER, UPPER	FOX LAKE	3008A	Nutrients		High	Group 3	2004

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
ST JOHNS RIVER, UPPER	ECONLOCKHATCHEE RIVER	2991A	Dissolved Oxygen, Coliforms, Nutrients, Lead, Biochemical Oxygen Demand, Mercury (Based on Fish Consumption Advisory)		Low	Group 3	2008, 2011 (mercury)
ST JOHNS RIVER, UPPER	LOUGHMAN LAKE	2978A	Biological Oxygen Demand, Dissolved Oxygen, Nutrients		Low	Group 3	2008
ST JOHNS RIVER, UPPER	SALT LAKE	2978B	Biological Oxygen Demand, Dissolved Oxygen, Nutrients		Low	Group 3	2008
ST JOHNS RIVER, UPPER	GEE CREEK	2994A	Coliforms, Nutrients, Lead		Low	Group 3	2008
ST JOHNS RIVER, UPPER	LAKE PREVATT	2993	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 3	2008
ST JOHNS RIVER, UPPER	LITTLE WEKIVA RIVER	2987	Coliforms, Nutrients		Low	Group 3	2008
ST JOHNS RIVER, UPPER	LAKE HARNEY	2964A	Dissolved Oxygen, Nutrients, Cadmium, Silver		Low	Group 3	2008
ST JOHNS RIVER, UPPER	LAKE JESSUP	2981	Un-ionized Ammonia, Nutrients		High	Group 3	2004
ST JOHNS RIVER, UPPER	LAKE JESSUP NEAR ST JOHNS RIVER	2981A	Dissolved Oxygen, Nutrients		High	Group 3	2004
ST JOHNS RIVER, UPPER	SOLDIER CREEK REACH	2986	Dissolved Oxygen, Coliforms, Nutrients, Lead		Low	Group 3	2008
ST JOHNS RIVER, UPPER	WEKIVA SPRINGS	2956C	Nutrients, Coliforms		High	Group 3	2004
ST JOHNS RIVER, UPPER	ROCK SPRINGS RUN	2967	Dissolved Oxygen, Coliforms, Nutrients, Biochemical Oxygen Demand		High	Group 3	2004
ST JOHNS RIVER, UPPER	RAVENNA PARK DITCHES (Smith Canal)	2962	Dissolved Oxygen, Coliforms, Nutrients, Iron, Turbidity		Low	Group 3	2008

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
ST JOHNS RIVER, UPPER	LAKE MONROE	2893D	Dissolved Oxygen, Nutrients, Lead, Un-ionized Ammonia, Selenium		Low	Group 3	2008
ST JOHNS RIVER, UPPER	BLACK WATER CREEK	2929A	Dissolved Oxygen, Nutrients, Iron, Lead, Cadmium, Selenium, Zinc		Low	Group 3	2008
ST JOHNS RIVER, UPPER	ST JOHNS RIVER ABOVE WEKIVA RIVER	2893C	Dissolved Oxygen, Lead, Nutrients, Total Suspended Solids, Biochemical Oxygen Demand		Low	Group 3	2008
ST JOHNS RIVER, UPPER	DEEP CREEK - LAKE ASHBY CANAL	2925	Coliforms, Iron, Lead, Cadmium, Silver		Low	Group 3	2008
ST JOHNS RIVER, UPPER	BLUE SPRINGS	28933	Nutrients		High	Group 3	2004
ST JOHNS RIVER, UPPER	ST JOHNS RIVER ABOVE LAKE GEORGE	2893Z	Dissolved Oxygen, Nutrients, Total Suspended Solids		Low	Group 3	2008
ST JOHNS RIVER, UPPER	BUCK LAKE	2918B	Coliforms		Low	Group 3	2008
ST MARKS RIVER	ST. MARKS RIVER	793A	Coliforms (fecal & total), Dissolved Oxygen		High	Group 1	2002
ST MARKS RIVER	ST MARKS RIVER	793B	Dissolved Oxygen		Low	Group 1	
ST MARKS RIVER	COPELAND SINK DRAIN	808	Dissolved Oxygen		Low	Group 1	
ST MARKS RIVER	LAKE MUNSON	807A	Nutrients		Low	Group 1	2007
ST MARKS RIVER	LAKE MUNSON	807C	Dissolved Oxygen, Nutrients (TSI)		Medium	Group 1	2007
ST MARKS RIVER	MUNSON SLOUGH (ABOVE LAKE)	807D	Dissolved Oxygen, Coliforms (fecal & total), Nutrients		Medium/Low	Group 1	2007
ST MARKS RIVER	LAKE BRADFORD	878A	Dissolved Oxygen		Low	Group 1	2007
ST MARKS RIVER	EAST DRAINAGE DITCH	916	Nutrients, Turbidity, Total Suspended Solids, Biochemical Oxygen Demand, Coliforms (fecal &		High	Group 1	2002

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			total)				
ST MARKS RIVER	ST AUGUSTINE BRANCH	865	Nutrients, Turbidity, Total Suspended Solids, Coliforms (fecal & total)		High	Group 1	2002
ST MARKS RIVER	CENTRAL DRAINAGE DITCH	857	Nutrients, Turbidity, Total Suspended Solids, Coliforms (fecal & total)		High	Group 1	2002
ST MARKS RIVER	LAKE LAFAYETTE DRAIN	756	Coliforms (fecal & total), Turbidity, Dissolved Oxygen		High/Medium	Group 1	2002
ST MARKS RIVER	LAKE LAFAYETTE - UPPER	756A	Nutrients (TSI), Dissolved Oxygen		High	Group 1	2002
ST MARKS RIVER	LAKE PINEY Z	756B	Nutrients (TSI), Dissolved Oxygen		Medium	Group 1	2002
ST MARKS RIVER	LAKE LAFAYETTE - LOWER	756C	Nutrients (TSI), Dissolved Oxygen		High/Medium	Group 1	2002
ST MARKS RIVER	GODBY DITCH	820	Nutrients, Turbidity, Total Suspended Solids, Biochemical Oxygen Demand		High	Group 1	2002
ST MARKS RIVER	BLACK CREEK	628	Dissolved Oxygen		Low	Group 1	2007
ST MARKS RIVER	ALFORD ARM	647	Dissolved Oxygen		Medium	Group 1	2007
ST MARKS RIVER	LAKE MICCOSUKEE	791L	Dissolved Oxygen, Coliforms (total), Mercury (Based on Fish Consumption Advisory)		Medium/Low	Group 1	2007, 2011 (mercury)
ST MARKS RIVER	WARD CREEK	459	Dissolved Oxygen, Coliforms (fecal & total)		High	Group 1	2002
ST MARKS RIVER	CHICKEN BRANCH	971	Dissolved Oxygen		Low	Group 1	
ST MARKS RIVER	LAKE WEEKS	971B	Dissolved Oxygen		Medium	Group 1	2007
ST MARKS RIVER	LOST CREEK	995	Dissolved Oxygen		Low	Group 1	

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
ST MARKS RIVER	WAKULLA RIVER	1006	Biology		Medium	Group 1	2007
ST MARKS RIVER	MCBRIDE SLOUGH	1028	Dissolved Oxygen		Low	Group 1	
ST MARKS RIVER	APALACHEE BAY (west)	8026	Bacteria (shellfish)		Medium	Group 1	2007
ST MARKS RIVER	SHELL POINT	8026B	Bacteria (beach advisory)		High	Group 1	2007
ST MARYS RIVER	ST MARYS RIVER	2097F	Biochemical Oxygen Demand		Low	Group 4	2010
ST MARYS RIVER	ST MARYS RIVER	2097J	Biochemical Oxygen Demand		Low	Group 4	2010
ST MARYS RIVER	ST MARYS RIVER	2097I	Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)
ST MARYS RIVER	MIDDLE PRONG ST. MARYS	2211	Coliforms, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010
ST MARYS RIVER	ST. MARYS R. N. PRONG	2097K	Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2011
ST MARYS RIVER	JACKSON CREEK	2140A	Nutrients		Low	Group 4	2010
ST MARYS RIVER	AMELIA RIVER	2124	Nutrients		High	Group 4	2005
ST MARYS RIVER	ST. MARYS RIVER	2097B	Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)
ST MARYS RIVER	LITTLE ST. MARYS RIVER	2106	Dissolved Oxygen, Coliforms, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)
ST MARYS RIVER	ST. MARYS RIVER AB ICWW	2097A	Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2010, 2011 (mercury)
ST MARYS RIVER	ST. MARYS RIVER	2097C	Dissolved Oxygen, Nutrients, Total Suspended Solids, Coliforms		Low	Group 4	2010

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
SUWANNEE RIVER, LOWER	SUWANNEE RIVER, LOWER	3422	Nutrients		Low	Group 1	
SUWANNEE RIVER, LOWER	SUWANNEE RIVER, LOWER	3422A	Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
SUWANNEE RIVER, LOWER	SUWANNEE RIVER, LOWER	3422B	Dissolved Oxygen, Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011 (mercury)
SUWANNEE RIVER, LOWER	LOWER SUWANNEE ESTUARY	3422D	Nutrients, Coliforms (shellfish), Mercury (Based on Fish Consumption Advisory)		Medium	Group 1	2007, 2011 (mercury)
SUWANNEE RIVER, LOWER	MANATEE SPRINGS	3422R	Biology		Low	Group 1	
SUWANNEE RIVER, LOWER	ANDERSON BAY DRAIN	3430	Dissolved Oxygen		Low	Group 1	
SUWANNEE RIVER, LOWER	PEACOCK SLOUGH	3483	Dissolved Oxygen		Low	Group 1	
SUWANNEE RIVER, LOWER	ALLEN MILL POND	3525	Dissolved Oxygen, Nutrients		Low	Group 1	2007
SUWANNEE RIVER, LOWER	SUWANNEE GULF 1	8029	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
SUWANNEE RIVER, LOWER	SUWANNEE GULF 2	8030	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
SUWANNEE RIVER, LOWER	SUWANNEE GULF 3	8031	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
SUWANNEE RIVER, LOWER	SUWANNEE GULF 4	8032	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
SUWANNEE RIVER, LOWER	DEKLE BEACH	8032A	Coliforms (beach advisory)		Medium	Group 1	2007
SUWANNEE RIVER, LOWER	KEATON BEACH	8032B	Coliforms (beach advisory)		Medium	Group 1	2007
SUWANNEE RIVER, LOWER	CEDAR BEACH	8032C	Coliforms (beach advisory)		Medium	Group 1	2007

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
SUWANNEE RIVER, LOWER	SUWANNEE GULF 5	8033	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
SUWANNEE RIVER, LOWER	SUWANNEE GULF 6	8034	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
SUWANNEE RIVER, LOWER	SUWANNEE GULF 7	8035	Coliforms (shellfish), Mercury (Based on Fish Consumption Advisory)		Medium/Low	Group 1	2008, 2011 (mercury)
SUWANNEE RIVER, LOWER	SANDERS CREEK	3702	Coliforms (fecal)		Low	Group 1	
SUWANNEE RIVER, LOWER	BLACK POINT SWAMP	3729	Coliforms (fecal)		Low	Group 1	
SUWANNEE RIVER, UPPER	LAKE JEFFERY OUTLET	3499	Biology	Listing based on biological sampling.	Low	Group 1	2002
SUWANNEE RIVER, UPPER	FALLING CREEK	3477	Nutrients, Coliforms (fecal)		Low	Group 1	2002
SUWANNEE RIVER, UPPER	ROARING CREEK	3392	Nutrients		Low	Group 1	2002
SUWANNEE RIVER, UPPER	DEEP CREEK	3388	Coliforms (fecal & total)		Low	Group 1	2002
SUWANNEE RIVER, UPPER	SUWANNEE RIVER (UPPER)	3341	Dissolved Oxygen, Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011 (mercury)
SUWANNEE RIVER, UPPER	CAMP BRANCH	3401	Coliforms (fecal & total)		Low	Group 1	2002
SUWANNEE RIVER, UPPER	SWIFT CREEK	3375	Dissolved Oxygen, Nutrients		Low	Group 1	2002
TAMPA BAY	BLACK POINT CHANNEL	1637	Dissolved Oxygen, Nutrients		Low	Group 1	2008
TAMPA BAY	TERRA CEIA BAY	1797A	Coliforms (fecal)		Low	Group 1	
TAMPA BAY	BISHOPS HARBOR	1797B	Nutrients, Coliforms (shellfish), Mercury (Based on Fish Consumption Advisory)		Medium/Low	Group 1	2008, 2011 (mercury)
TAMPA BAY	COCKROACH BAY	1778	Dissolved Oxygen,		Medium/Low	Group 1	2008, 2011

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			Nutrients (chla), Coliforms (shellfish), Mercury (Based on Fish Consumption Advisory)		Low		(mercury)
TAMPA BAY	BULLFROG CREEK	1666	Coliforms (fecal & total)		Medium	Group 1	2008
TAMPA BAY	BULLFROG CREEK	1666A	Dissolved Oxygen, Coliforms (fecal & total), Nutrients (chla)		Low	Group 1	2008
TAMPA BAY	TAMPA BAY LOWER	1558A	Coliforms (shellfish), Mercury (Based on Fish Consumption Advisory)		Medium/Low	Group 1	2008, 2011
TAMPA BAY	TAMPA BAY MID	1558B	Coliforms (shellfish), Mercury (Based on Fish Consumption Advisory)		Medium/Low	Group 1	2008, 2011
TAMPA BAY	TAMPA BAY UPPER	1558C	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
TAMPA BAY	BEN T. DAVIS NORTH	1558HB	Dissolved Oxygen		Low	Group 1	
TAMPA BAY	COFFEETOP BAYOU	1700	Dissolved Oxygen, Coliforms (fecal), Nutrients (chla)		Low	Group 1	2008
TAMPA BAY	SMACKS BAYOU	1683	Dissolved Oxygen, Coliforms (fecal), Nutrients (chla)		Low	Group 1	2008
TAMPA BAY	OLD TAMPA BAY LOWER	1558F	Coliforms (shellfish), Mercury (Based on Fish Consumption Advisory)		Medium/Low	Group 1	2008, 2011 (mercury)
TAMPA BAY	HILLSBOROUGH BAY LOWER	1558D	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
TAMPA BAY	SNUG HARBOR	1654	Dissolved Oxygen		Low	Group 1	2008
TAMPA BAY	DIRECT RUNOFF TO BAY	1624	Dissolved Oxygen, Coliforms (fecal & total), Un-ionized Ammonia		High	Group 1	2003
TAMPA BAY	CROSS CANAL (NORTH)	1625	Dissolved Oxygen, Coliforms (fecal), Nutrients (chla)		Low	Group 1	2008

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
TAMPA BAY	LONG BRANCH	1627	Dissolved Oxygen, Coliforms (fecal & total)		High	Group 1	2003
TAMPA BAY	LONG BRANCH TIDAL	1627B	Dissolved Oxygen		Low	Group 1	
TAMPA BAY	HILLSBOROUGH BAY UPPER	1558E	Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2011
TAMPA BAY	OLD TAMPA BAY	1558G	Coliforms (shellfish), Mercury (Based on Fish Consumption Advisory)		Medium/Low	Group 1	2008, 2011
TAMPA BAY	MCKAY BAY	1584B	Dissolved Oxygen, Nutrients (historic chla & chla), Mercury (Based on Fish Consumption Advisory)		High/Low	Group 1	2003, 2011 (mercury)
TAMPA BAY	ALLEN CREEK	1604	Dissolved Oxygen, Nutrients, Coliforms (fecal)		Low	Group 1	2008
TAMPA BAY	DELANEY CREEK	1605	Dissolved Oxygen, Coliforms (fecal & total), Lead, Nutrients, Biochemical Oxygen Demand		High	Group 1	2003
TAMPA BAY	OLD TAMPA BAY	1558H	Coliforms (shellfish), Mercury (Based on Fish Consumption Advisory)		Medium/Low	Group 1	2008, 2011
TAMPA BAY	PALM RIVER	1536E	Dissolved Oxygen, Nutrients (historic chla & chla)		Low	Group 1	2008
TAMPA BAY	YBOR CITY DRAIN	1584A	Nutrients, Total Suspended Solids, Biochemical Oxygen Demand, Chemical Oxygen Demand		High	Group 1	2003
TAMPA BAY	ALLIGATOR CREEK	1574	Nutrients (chla), Dissolved Oxygen, Coliforms (fecal & total)		Low	Group 1	2008
TAMPA BAY	ALLIGATOR LAKE	1574A	Dissolved Oxygen, Nutrients (historic chla & chla)		Low	Group 1	2008

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
TAMPA BAY	OLD TAMPA BAY	1558I	Coliforms (shellfish), Mercury (Based on Fish Consumption Advisory)		Medium/Low	Group 1	2008, 2011
TAMPA BAY	BELLOWS LAKE OUTLET	1579	Dissolved Oxygen, Coliforms (fecal & total), Nutrients		Low	Group 1	2008
TAMPA BAY	SIXMILE CREEK (Tampa Bypass Canal)	1536F	Dissolved Oxygen, Nutrients (chla), Biochemical Oxygen Demand		Low	Group 1	2008
TAMPA BAY	MULLET CREEK	1575	Dissolved Oxygen, Coliforms (fecal & total)		Low	Group 1	2008
TAMPA BAY	CHANNEL G	1563	Dissolved Oxygen, Nutrients (chla), Coliforms (fecal)		Low	Group 1	2008
TAMPA BAY	TAMPA BYPASS CANAL	1536C	Dissolved Oxygen, Nutrients (chla), Coliforms (total)		Low/Medium	Group 1	2008
TAMPA BAY	BISHOP CREEK	1569	Dissolved Oxygen, Coliforms (fecal & total)		Low	Group 1	2008
TAMPA BAY	SWEETWATER CREEK - UPPER	1516	Dissolved Oxygen, Coliforms (total), Nutrients (chla & historic chla),		Low	Group 1	2008
TAMPA BAY	SWEETWATER CREEK TIDAL - LOWER	1570A	Dissolved Oxygen, Coliforms (fecal & total), Nutrients (chla & historic chla)		High	Group 1	2003
TAMPA BAY	LAKE TARPON CANAL	1541A	Dissolved Oxygen, Coliforms (fecal & total), Nutrients		Low	Group 1	2008
TAMPA BAY	LAKE TARPON CANAL	1541B	Dissolved Oxygen		Low	Group 1	2008
TAMPA BAY	LAKE TARPON SOUTH COVE	1541C	Dissolved Oxygen		Low	Group 1	
TAMPA BAY	ROCKY CREEK	1507	Dissolved Oxygen, Coliforms (fecal & total), Nutrients, Total Suspended Solids		High	Group 1	2003
TAMPA BAY	ROCKY CREEK	1507A	Dissolved Oxygen, Nutrients (historic chla & chla)		High	Group 1	2003

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
TAMPA BAY	MOCCASIN CREEK	1530	Dissolved Oxygen, Coliforms (fecal), Nutrients (chla)		Low	Group 1	2008
TAMPA BAY	COW BRANCH	1529	Dissolved Oxygen, Coliforms (fecal)		Low	Group 1	
TAMPA BAY	DOUBLE BRANCH	1513	Dissolved Oxygen, Coliforms (fecal & total), Nutrients		Low	Group 1	2008
TAMPA BAY	BRUSHY CREEK	1498	Dissolved Oxygen, Coliforms (fecal & total)		Low	Group 1	2008
TAMPA BAY	BROOKER CREEK	1474	Dissolved Oxygen, Coliforms (fecal)		High	Group 1	2003
TAMPA BAY	LAKE JUANITA	1473W	Nutrients (historic TSI)		Medium	Group 1	2008
TAMPA BAY	MOUND LAKE	1473X	Nutrients (historic TSI)		Medium	Group 1	2008
TAMPA BAY	CALM LAKE	1473Y	Nutrients (historic TSI)		Medium	Group 1	2008
TAMPA BAY	CRESCENT	1474V	Nutrients (TSI)		Medium	Group 1	2008
TAMPA BAY	DEAD LADY LAKE	1474D	Nutrients (TSI)		Medium	Group 1	2008
TAMPA BAY	LAKE REINHEIMER - OPEN	1478H	Nutrients (TSI)		Medium	Group 1	2008
TAMPA BAY	LAKE TARPON	1486A	Dissolved Oxygen, Nutrients (TSI)		Medium	Group 1	2008
TAMPA BAY	BUCK LAKE	1493E	Nutrients (TSI)		Medium	Group 1	2008
TAMPA BAY	BRANT LAKE	1494B	Nutrients (TSI)		Medium	Group 1	2008
TAMPA BAY	SUNSET LAKE	1496A	Nutrients (TSI)		Medium	Group 1	2008
TAMPA BAY	LAKE ESTES	1502A	Nutrients (TSI)		Medium	Group 1	2008
TAMPA BAY	CHAPMAN LAKE	1502C	Nutrients (TSI)		Medium	Group 1	2008
TAMPA BAY	LAKE CARROLL	1516A	Nutrients (TSI)		Medium	Group 1	2008
TAMPA BAY	LAKE MADELENE	1516B	Nutrients (TSI)		Medium	Group 1	2008
TAMPA BAY	LAKE ELLEN - OPEN WATER	1516E	Nutrients (TSI)		Medium	Group 1	2008

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
TAMPA BAY	BECKETT LAKE - OPEN WATER	1603C	Nutrients (TSL), Dissolved Oxygen		Medium	Group 1	2008
TAMPA BAY	DELANEY CREEK TIDAL	1605D	Dissolved Oxygen, Nutrients (chla), Coliforms (fecal & total), Lead		Medium	Group 1	2008
TAMPA BAY	LITTLE BAYOU - BASIN Q	1709D	Dissolved Oxygen, Nutrients (chla), Coliforms (fecal)		Medium	Group 1	2008
TAMPA BAY	PINELLAS POINT - BASIN V	1709E	Dissolved Oxygen		Low	Group 1	
TAMPA BAY	FRENCHMAN'S CREEK - BASIN U	1709F	Coliforms (fecal)		Low	Group 1	
TAYLOR CREEK	NUBBIN SLOUGH	3203A	Nutrients (chla), Dissolved Oxygen, Coliforms (fecal & total)		High/Low	Group 1	2002 (nutrients), 2007
TAYLOR CREEK	MOSQUITO CREEK	3203B	Dissolved Oxygen, Nutrients (chla), Coliforms (fecal & total)		High	Group 1	2002
TAYLOR CREEK	CHANDLER HAMMOCK SLOUGH	3199B	Nutrients (chla), Turbidity, Dissolved Oxygen		High	Group 1	2002
TAYLOR CREEK	TAYLOR CREEK	3205	Nutrients (chla), Dissolved Oxygen, Turbidity		High/Low	Group 1	2002 (nutrients), 2007
TAYLOR CREEK	OTTER CREEK	3205D	Dissolved Oxygen, Nutrients (chla)		High	Group 1	2002
WACCASASSA RIVER	WACCASASSA RIVER	3699	Coliforms (fecal & total)		Medium	Group 1	2007
WACCASASSA RIVER	SANDERS CREEK	3702	Coliforms (fecal)		Low	Group 1	
WACCASASSA RIVER	HORSEHOLE CREEK	3703	Dissolved Oxygen		Low	Group 1	2007
WACCASASSA RIVER	BLACK POINT SWAMP	3729	Nutrients (chla), Coliforms (fecal)		Medium	Group 1	2007
WACCASASSA RIVER	LITTLE WACCASASSA RIVER	3747	Dissolved Oxygen		Low	Group 1	2007
WACCASASSA RIVER	WACCASASSA RIVER GULF 1	8037	Coliforms (shellfish), Mercury (Based on		Medium/Low	Group 1	2007, 2011

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
			Fish Consumption Advisory)				
WACCASASSA RIVER	WACCASASSA RIVER GULF 2	8038	Coliforms (shellfish), Mercury (Based on Fish Consumption Advisory)		Medium/Low	Group 1	2007, 2011
WITHLACOOCHIE RIVER SOUTH	LAKE MATTIE OUTLET	1476	Nutrients		Low	Group 4	2010
WITHLACOOCHIE RIVER SOUTH	DADE CITY CANAL	1399	Nutrients, Dissolved Oxygen, Biochemical Oxygen Demand		High	Group 4	2005
WITHLACOOCHIE RIVER SOUTH	LITTLE WITHLACOOCHIE RIVER	1381	Dissolved Oxygen, Coliforms		Low	Group 4	2010
WITHLACOOCHIE RIVER SOUTH	BIG GANT CANAL	1378	Dissolved Oxygen, Coliforms		Low	Group 4	2010
WITHLACOOCHIE RIVER SOUTH	LAKE LINDSEY	1329H	Dissolved Oxygen, Coliforms		Low	Group 4	2010
WITHLACOOCHIE RIVER SOUTH	LESLIE-HEFNER CANAL	1357	Dissolved Oxygen		High	Group 4	2005
WITHLACOOCHIE RIVER SOUTH	LAKE ROUSSEAU	1329B	Dissolved Oxygen, Coliforms, Nutrients		Low	Group 4	2010
WITHLACOOCHIE RIVER SOUTH	RAINBOW RIVER	1320A	Nutrients		High	Group 4	2005
WITHLACOOCHIE RIVER NORTH	JUMPING GULLY CREEK	3318	Dissolved Oxygen, Nutrients, Turbidity		Low	Group 1	2007
WITHLACOOCHIE RIVER NORTH	WITHLACOOCHIE RIVER	3315	Nutrients, Mercury (Based on Fish Consumption Advisory)		Low	Group 1	2007, 2011 (mercury)
YELLOW RIVER	YELLOW RIVER	30A	Dissolved Oxygen, Turbidity, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2011
YELLOW RIVER	LITTLE CREEK	144	Coliforms		Low	Group 4	2011
YELLOW RIVER	TURKEY CREEK	117	Coliforms, Turbidity		Low	Group 4	2011
YELLOW RIVER	MURDER CREEK	107	Dissolved Oxygen, Coliforms		Low	Group 4	2011

HUC Name	Water Segment	WBID	Parameters of Concern	Comments	Priority	Basin Rotation Group	Projected Year of TMDL Development
YELLOW RIVER	YELLOW RIVER	30	Coliforms, Turbidity, Mercury (Based on Fish Consumption Advisory)		Low	Group 4	2011

Appendix M

In May 1999, the Florida Legislature enacted the Florida Watershed Restoration Act (FWRA) to clarify FDEP's statutory authority for TMDL development and to establish the processes for listing impaired waters and developing TMDLs. FDEP uses a watershed management approach, which is a program for managing the state's water resources on the basis of hydrologic units, as the framework for implementing the FWRA. The approach utilizes a process that rotates through the state's 52 basins over the following five-year phased cycle:

Phase 1: Initial Basin Assessment

Conduct preliminary assessments of water body health; develop a Planning List of potentially impaired waters using the methodology in Part II of Chapter 62-303, FAC; identify sources of pollution; develop a coordinated monitoring plan, focusing on waters on the Planning List; and produce a Basin Status Report.

Phase 2: Strategic Monitoring

Supplement existing data to further characterize basin conditions by: obtaining from monitoring entities existing data that are not currently in STORET and entering it into the Florida STORET database; monitoring waters on the 1998 303(d) list for which insufficient data are available to analyze the waters using the methods in Chapter 62-303, FAC; monitoring waters on the Planning List to verify potential impairment; conducting intensive survey monitoring to obtain data needed for TMDL development; producing a Basin Assessment Report that assesses all waters using the methodology in EPA's 2002 Integrated Water Quality Monitoring and Assessment Report Guidance; preparing a revised Planning List of potentially impaired waters; and adopting, using a public participation process, a Verified List of impaired waters that is submitted to EPA as a basin-specific 303(d) list that will update the state's 303(d) list.

Phase 3: Data Analysis and TMDL Development

Develop TMDLs for waters on the basin-specific Verified List of impaired waters in accordance with the schedule agreed to by EPA and FDEP; conduct a more detailed assessment of major pollutant sources, including the quantification of nonpoint source loadings; and, begin the development of the Basin Management Action Plan that will specify load reduction allocations and activities that will be undertaken to reduce loadings in order to meet the TMDL.

Phase 4: Basin Management Action Plan Development

Work with local stakeholders to develop a Basin Management Action Plan that specifies how established goals will be achieved by recommending management activities, establishing who is responsible for implementation, establishing a schedule for implementation, and noting how effectiveness of the plan will be assessed. While the plan will focus on implementation of TMDLs developed in the basin, it may also address more general watershed goals.

Phase 5: Basin Management Action Plan Implementation

Begin implementation of the Basin Management Action Plan and associated water resource protection and restoration efforts, including implementation of Best Management Practices, habitat protection and restoration activities, environmental infrastructure improvements, and issuance of NPDES permits.

At the conclusion of this cycle, the process begins anew so that all basins in the state are assessed every five years.

FDEP organized the state's 52 basins into 30 groups for assessment purposes. The groups were then organized as follows for the basin rotation cycle:

Group 1	Group 2	Group 3	Group 4	Group 5
St. Marks	Apalachicola/ Chipola	Choctawhatchee/St. Andrews	Pensacola	Perdido
Suwannee	Hillsborough/ Alafia/Manatee	Peace/Myakka/ Sarasota Bay	South Withlacoochee	Crystal River
Ocklawaha	Charlotte Harbor	Caloosahatchee	Southeast Coast -Biscayne Bay	Everglades
Tampa Bay	St. Lucie - Loxahatchee	Lake Worth Lagoon - Palm Beach Coast	Kissimmee River	Florida Keys
Everglades/ West Coast	Lower St. Johns	Lower St. Johns	Fisheating Creek	Upper East Coast
Lake Okeechobee	Upper St. Johns	Upper St. Johns	Nassau/St. Mary's	Middle East Coast/Indian River

The first basin rotation cycle began in July 2000 and is proceeding in accordance with the following schedule:

Group	July 2000	July 2001	July 2002	July 2003	July 2004	July 2005	July 2006	July 2007	July 2008
1	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 1	Phase 2	Phase 3	Phase 4
2		Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 1	Phase 2	Phase 3
3			Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 1	Phase 2
4				Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 1
5					Phase 1	Phase 2	Phase 3	Phase 4	Phase 5

Appendix N

Assessing Ambient Data for Naturally Variable Parameters Against Numeric Water Quality Criteria

Water quality criteria for aquatic life are typically established for two intended levels of protection. The first level provides for survival over short periods of time and the second allows for organisms to live, grow, and reproduce in a given area over a longer period of time. Florida's water quality criteria provide the latter level of protection for their aquatic life uses.

EPA recognizes that all numeric water quality criteria have three elements: magnitude (e.g., how much), duration (e.g., how long at the specified magnitude), and frequency of exceedance (e.g., how often for the specified duration period), regardless of whether they are explicitly described in state water quality standards. A characterization of these three elements is essential to perform tasks such as the development of wasteload allocation for deriving permit limits. Often this is accomplished by identifying a "design flow" (e.g., the 7Q10 - lowest seven day average flow with a recurrence interval of ten years) to match an expression of criterion magnitude (e.g., a concentration) that accounts for allowable duration and frequency. Florida's water quality standards include numeric water quality criteria that are typically expressed as concentration values "not to be exceeded". As stated by Florida, this expression relates to their intended use for wasteload allocation purposes. Indeed, it is Florida's typical practice to establish permit limits that simply reflect the criterion magnitude (with or without an allowable mixing zone, where exceeding criteria for short periods of time and space is consistent with Florida water quality standards under certain circumstances).

In addition to serving as the basis for water quality-based pollutant source controls, water quality standards also function as the basis for assessing ambient water quality to determine if waters are impaired. Because the technical capability and resources for continuous monitoring are extremely rare, assessors typically rely on analytical chemistry measures of "grab samples" of surface waters taken at infrequent intervals of time over a period of years to serve as the data base for these determinations. These data do not allow a direct characterization of duration and frequency as typically expressed in water quality standards for purposes of wasteload allocation. These assessment data can be grouped and presented as data distributions that can subsequently be statistically compared to criteria magnitude values. The closest approximation of duration and frequency from this type of analysis is the percent of samples above a criterion magnitude.

This could be further characterized as the “percent of time” a criterion magnitude is exceeded, provided the data are considered representative of ambient conditions over the assessment period.

Many State water quality standards, including Florida’s, do not explicitly specify an allowable percent of ambient measurement samples above numeric criteria magnitude values for determining impairment. The Florida statute that authorizes state development of water quality standards, however, directs Florida to establish and apply criteria in water quality standards recognizing the inherent natural and statistical variability (F.S. 403.021(11)). EPA believes that Florida has correctly interpreted its own statute to recognize natural and statistical variability when making determinations of impairment.

Statistical variability relates to an accounting for sampling and analytical error and other factors that confer uncertainty in the accuracy, precision, and representativeness of sample data to represent “true” conditions. Generally, the smaller the sample size, the greater the uncertainty that “true” conditions are accurately represented. Statistical variability can be mathematically expressed as a confidence level, and the desired confidence level is generally a risk management decision left to the discretion of the state in interpreting its available data for purposes of determining impairment. However, overwhelming evidence of gross impairment should not be masked by unreasonable expectations for statistical certainty.

Natural variability relates to the degree that conditions in nature vary as a function of time and space based on physical, chemical, biological, hydrological, and geomorphological factors. Pollutants and pollutant parameters can be placed into three distinct groups for considering the effects of natural variability. Some pollutants, such as chlorine and pesticides, are introduced solely as a function of anthropogenic activity and, although natural factors can mitigate or augment their effects, their presence cannot be attributed to natural conditions. The second group of pollutants usually occur naturally in the environment at low levels, such as copper and cadmium, but protective water quality criteria for these pollutants lie well above the typical range of solely natural occurrence. For this group, the natural contribution is likely negligible at measured levels above or near the water quality criterion. Natural variability is generally not a factor for consideration in evaluating ambient measurement samples that exceed water quality criterion magnitude values for these first two groups of pollutants. In contrast, the third group of pollutants or pollutant parameters have protective water quality criteria that lie within or near the range of naturally occurring conditions. This “naturally variable” group include pollutants or pollutant parameters such as dissolved oxygen, turbidity, bacteria, conductivity, and alkalinity

Natural variability is an appropriate and reasonable factor to consider in evaluating ambient data for this group of pollutants or pollutant parameters.

Dissolved oxygen (DO) is perhaps the best example of a naturally variable pollutant parameter. DO refers to the volume of oxygen that is contained in water, and is measured and expressed as a concentration (typically in mg/L). Oxygen arrives in surface water as a by-product of photosynthesis by aquatic plants and from transfer from the overlying air. DO solubility and, as a result, the expected ambient measured levels, are affected by temperature (colder water holds more oxygen), salinity (fresher water holds more oxygen), and altitude (lower pressure reduces solubility). DO levels are also affected by flow and stream channel or lake morphology (more turbulent or well-mixed water transfers more oxygen from the air at the water surface), degree of biological activity (plant and animal respiration deplete oxygen, especially at night), and the amount of naturally occurring organic matter (aerobic decomposition depletes oxygen). As a result, DO can change and vary in a single water body according to time of day, season, weather, temperature, depth and location of sampling, and flow. The variability across different waters is augmented by many of the factors described above. DO can range from 0-18 mg/L in natural water systems, with long-term levels set generally within 5-6 mg/L to support a diverse aquatic community in most warmwater systems, as reflected by Florida's water quality standards. Specific information concerning dissolved oxygen and other naturally variable pollutants can be found in textbooks such as *Water Quality: Prevention, Identification and Management of Diffuse Pollution* by Novotny and Olem (published by Van Nostrand Reinhold, 1994), *Limnology (second edition)* by Wetzel (published by Saunders College Publishing, 1983), and *Water Quality: Characteristics, Modeling, and Modification* by Tchobanoglous and Schroeder (published by Addison-Wesley Publishing Company, 1985). Information summaries and general information can be found at University web sites, including excellent ones on DO from North Carolina State University (<http://h2osparc.wq.ncsu.edu/info/do.html>) and <http://www.ncsu.edu/sciencejunction/depot/experiments/water/lessons/do/>)

Although States have discretion in selecting a target for determining impairment of water quality standards, the State would need to justify why the target for an allowable number of ambient measurement samples to exceed a criterion magnitude for a naturally variable pollutant parameter is appropriate and reasonable and results in an acceptable 303(d) listing decision. Florida's choice of 10% is consistent with EPA's general recommendations for pollutant parameters of this type, and represents a reasonable choice for this application with respect to naturally variable pollutants and pollutant parameters, such as DO. Waters that are not listed as impaired, or are removed from the

list of impaired waters, on this basis can reasonably be expected to achieve the intended level of protection expressed in Florida's water quality standards.